Infantry

March-April 1995

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Infantry

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FRONT COVER: As U.S. forces fought their way across Germany in the Spring of 1945, they faced the daunting prospect of dislodging a determined enemy from the ruins of his own cities.
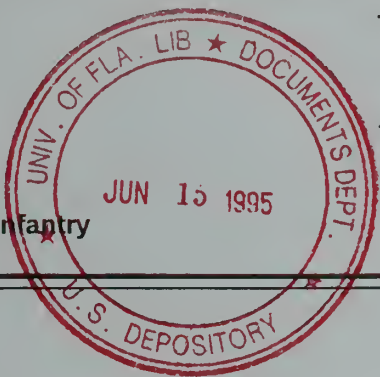
Commandant's NOTE

MAJOR GENERAL JOHN W. HENDRIX   Chief of Infantry

The Infantry Force XXI Working Group

In my last Commandant's Note, I outlined the purpose and goals of Infantry Force XXI, using U.S. Army Training and Doctrine Command (TRADOC) Pamphlet 525-5 as the Army vision of how U.S. joint military operations will be conducted in the 21st Century. I also described how we will apply the Force XXI design principles in developing the force structure we will need to sustain an Army that can compel potential aggressors to rethink their actions, deter aggression by our ability to project a credible military presence, reassure our Allies and neutral nations, and support those who turn to us for assistance. That is a tall order, and in this note, I want to discuss the Infantry Force XXI Working Group and the pivotal role it will play as we continue to restructure the force to meet the challenges of the next decade and beyond.

The missions of the working group are as diverse as the array of contingencies and missions our Army will have to face in tomorrow's world, but its primary charter is to define the Infantry structure for Force XXI, while working in concert with other agencies defining the overall structure of the Army. The organization works directly for the Chief of Infantry, and will ensure timely interface between the U.S. Army Infantry Center staff and all TRADOC staffs and training centers. Army Force XXI is an enormous undertaking, and it will demand the closest cooperation between all branches of the Army. The Experimental Force at Fort Hood, other Battle Labs across TRADOC, and all of the branch service schools will be linked through the Infantry Working Group as contributors to this initiative.

While the future needs of the Army may not be quantifiably greater than those we have faced in the past, they will certainly be different in many aspects. Advances in weapons technology, burgeoning developments in night vision capabilities, the increased sophistication of potential adversaries, and the need for specific systems' compatibility with those of future coalition partners will demand that we remain competitive in the research and development arena. Digitization is but one of the initiatives being actively pursued and exercised; its potential for communicating operational data and ensuring commanders' situational awareness is tremendous, and we would certainly be remiss in not exploiting it to the fullest extent. It is these different needs that the working group will have to examine as it goes about its business.

The Infantry Force XXI Working Group will closely examine the organizations that we now have and weigh them against future needs. Structurally, light infantry is generally on track, but it is absolutely imperative that we leverage technology to maximize lethality while still maintaining the greatest possible degree of survivability. The challenge is to modernize, apply technology to the benefit of the fighting force, and still accomplish this within the fiscal constraints that have become reality over the last decade. The heavy force still

faces the challenge of having too few infantry dismounts; in spite of the technological gains afforded by advances in target acquisition and weapons systems, we have lost the dedicated antitank element and its firepower. In spite of the anticipated improvements in the field of infantry weapons, this means that a potential enemy will be able to concentrate his firepower on fewer targets, potentially enhancing his own lethality while placing greater demands upon our own maneuverability and survivability.

The Infantry Force XXI Working Group will further address the necessary organizational and technological issues in search of solutions to this challenge. The goal is to design an organization that has enough infantry to meet the missions of both today and the future, in a way that is both tactically sound and affordable. In doing this, we must strive to achieve that degree of digitization of both light and heavy forces that will serve as a paradigm for digitization across the Army. The extensive modernization effort that is Infantry Force XXI must focus on development of the doctrine, weapons, vehicles, force protection, night vision devices, and communications systems we will need, but only in order to achieve a clear operational advantage over the threat. We cannot afford to buy all we want, so we must identify those programs and systems that will afford us a clear technological edge, and then go after them. The working group will assist us in determining those most critical needs.

In its deliberations, the working group will also examine the impact of the missions and conditions under which the Army of the next century will have to operate. Future leaders may well have to operate in the absence of clear indicators and with only vague parameters to guide their actions. This will demand a clear understanding of higher headquarters' intent and the doctrinal principles for such situations, and an ability to render sound, reasoned judgements under pressure. Military operations of the future—as we have seen in recent history—will likely involve the close, direct fire battle, and this brings me to the most critical element of the equation: the soldier.

Whatever weapons and systems we field, the soldiers and leaders of tomorrow's Army will have to be of the highest quality our Nation can summon, and we must train, support, and retain them in sufficient numbers to ensure that when our national interests are threatened they can deploy rapidly, hit hard and fast, gain the decisive victory, and return with minimal casualties. That is our task, and it is as great a challenge as we have ever faced, but we must meet it if our Nation is to continue to exercise her role as a leader. We shall accomplish this task as the Army has met all other challenges in its history, through the combined efforts of dedicated men and women, and the Infantry Force XXI Working Group will ensure that the Infantry's contribution to Army Force XXI is a significant and lasting one.
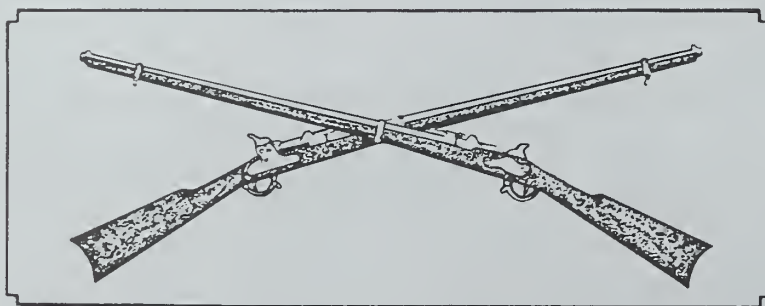
INFANTRY LETTERS

DIEN BIEN PHU

The article "Dien Bien Phu 1954: A Historical Perspective," by Captain James R. Nagel (INFANTRY, September-October 1994, pages 32-38) was of great interest to me, as I was involved in picking up 100 of the 500 survivors the Viet Minh had released and sent down to Saigon for our 374th Troop Carrier Wing C-124s to take back to Tachikawa, Japan. Military Air Transport Service (MATS) crews then picked them up and flew them back to France (or maybe it was somewhere in North Africa). This was Operation WOUNDED WARRIOR in early July 1954, a few weeks before the Geneva "peace" agreement was signed.

The big surprise for our flight crew personnel from Tachikawa was discovering that most of the wounded were not the Foreign Legionnaires we expected to find but colonial troopers from Morocco, Tunisia, and Algeria. (The passenger manifest of our particular flight was among several items that I sent to the Infantry Museum at Fort Benning.)

When we approached Manila Bay on the first leg back to Tachikawa, I closed my navigation log and went to the troop deck of the C-124 to point out the island of Corregidor to three of the legionnaires I had been talking with before we left Tan Son Nhut. I thought these survivors of a famous battle might be interested in seeing another such site, and all of them pressed attentively against the windows.

No bells rang on that trip to alert me that I'd be back at Tan Son Nhut 15 years later for a somewhat longer stay.

JACK MUDIE
Glendale, California

CLOSE-COMBAT OPTIC FOR THE FUTURE

Combat studies after World War II and the Korean War showed that most rifle fire at close-in targets—less than 300 meters—was aimed quickly, because using iron sights took too long and exposed soldiers to enemy fire. By the Vietnam War, unaimed "area" suppressive fire from the fully automatic M16A1 assault rifle worked only at short range in closed terrain.

Instead of abandoning longer range marksmanship, however, we need to adopt the XM86 red-dot or blue-dot reflex firing combat optic for faster, more accurate fire. Six years ago, I wrote to INFANTRY advocating a collimator reflex/night sight—called the occluded eye gunsight (OEG). The U.S. Army Special Forces who raided the Son Tay POW camp on 21 November 1970 devastated the enemy with accurate fire using a collimator reflex night sight.

Today, the OEG costs less than a pair of boots and is used by many units. Most important, it bolts to the carrying handle of the M16, allows for the use of iron sights for long-range accuracy, weighs just 4.5 ounces, and requires no batteries. It uses the Bindon aiming concept, in which both eyes remain open, one looking at the red dot (illuminated by a radioactive tritium element) while the other looks at the target. The firer sees a red dot on the target when he shoulders the rifle, then fires, hitting the target in a split second day or night.

A cousin to the OEG, the advanced combat optical gunsight (ACOG), is now in use in Special Forces by designated marksmen for reflex firing and for longer range target acquisition and firing. It is a 3.5-power scope with a red aiming post illuminated by a radioactive element—again requiring no batteries. (It is important that the

Army choose a reflex collimator sight that does not require batteries. A rifleman can't have his optic fail him in a firefight because of a dead battery— as MILES-equipped weapons often do at the National Training Center. And a battery-powered optic may not work around water; even watertight seals can eventually deteriorate.)

The reflex close-combat optic chosen needs to be soldier-proof and logistically undemanding, and it should allow for reflex short-range firing day or night as well as for long-range sniping, and it must interface with NVGs. The answer is to have OEGs for most soldiers and ACOGs for a designated marksman in every squad.

The new objective individual combat weapon seeks an exploding munition that will reduce the soldier's need to get a line-of-sight flight path for his bullets, but this does not address the realities of combat situations. Maneuvering U.S. soldiers may be pinned down by larger numbers of enemy soldiers (who are firing unlimited ammunition from behind cover) and unable to use their sights at all to gain effective fire superiority.

What's missing is a lightweight rifleman's gun shield (RGS) that would affix to the M16 bayonet lug and give the soldier just enough ballistic protection to peer out from cover, aim, and fire. The RGS principle is already in use on many rocket launchers and recoilless rifles. An RGS would defeat enemy bullets before they reached soldiers' body armor. When not attached to the rifle, the RGS can be a back plate for Ranger body armor, attached to the rucksack rear as an armor plate (rucksack becomes mobile prone firing point), or affixed to the front handlebars of a folding all-terrain bicycle as a wind and ballistic shield.

Since the soldier is now considered a *system*, we need to look at him in his

entirety—the way he acquires his targets, aims, and fires. Whether he can be protected enough as he does this needs to be figured in at the same time. Combat has often shown that even TA-50 gear can provide ballistic protection if it is positioned to increase a soldier's mobility and protection.

MIKE SPARKS
U.S. Army National Guard
Raeford, North Carolina

MOGADISHU, OCTOBER 1993

We want to thank INFANTRY for the two-part series on the battle in Mogadishu, by Captain Charles P. Ferry, which we used to support training, education, and development for the officers in our U.S. Army ROTC battalion at Bowling Green State University, Bowling Green, Ohio. *(See "Mogadishu, October 1993: Personal Account of a Rifle Company XO," September-October 1994, pages 22-31, and "Mogadishu, October 1993: A Company XO's Notes on Lessons Learned," November-December 1994, pages 31-38.)*

From information in these articles, we were able to develop a class about the battle and present it to the cadre and cadets in our weekly officer and NCO professional development program.

This class enabled us to show the cadets what we believe is the future battlefield of the U.S. armed forces and also the way NCOs and officers work together to make "the team concept" of the Army come to life.

We are pleased to say that the class was a success, and we hope other readers of these articles benefitted from them as much as we did.

NELSON G. KRAFT
2LT, Infantry
JOSEPH CAMIOLO
SSG, U.S. Army

Captain Charles P. Ferry's article, "Mogadishu, October 1993," in the November-December 1994 issue of INFANTRY was highly informative and should be studied by all combat arms leaders. The insights and experiences he shares should help put to rest many of the issues concerning the use of limited training time and dollars for operations other than war (OOTW).

Our Army has only one purpose—to fight and win our nation's wars. Operations other than war are contingencies that we can and should perform, but OOTW tasks are not our primary mission or focus. Disciplined combat units that are already well trained in their battle tasks and have developed a high esprit de corps can accomplish OOTW tasks with minimal train-up. Conversely, a unit that has not trained in depth on its battle tasks but has devoted training to possible OOTW contingencies cannot be expected to fight and win—at the least possible cost to its personnel and equipment—once it is required to fight.

A recurring point in the article is: Train hard in peace for war. Units, specifically combat units, should focus training on warfighting skills. Soldiers must be trained by squad leaders on individual tasks, and this training must be incorporated into platoon and company collective training. Then, both the individual and collective training must focus on and make considerable use of battle drills.

Two areas that Captain Ferry found to be high pay-off training for combat were live fire exercises and physical training (PT). These two areas apply equally to all units, whether they are mechanized or light infantry, armor or artillery, combat support or combat service support.

Live fire training must begin with preliminary marksmanship instruction and then progress through the standard qualification courses up to training that incorporates all small arms, heavy weapons, artillery, and close air support. These live fire exercises must be conducted with soldiers as close as possible to the impact of each caliber round. Offensive live fire exercises must incorporate the full spectrum of available weapons and must not be excessively controlled by safety personnel.

Team leaders, squad leaders, platoon sergeants, platoon leaders, executive officers, and commanders are sufficient for safety, and they will be the only ones present during combat or other operations. They must therefore be properly trained and exposed to numerous live fire exercises themselves. If defending from prepared positions, there should be no reason that indirect fires cannot be adjusted at 300 meters or less from the battle position. The key to realistic and safe live fire exercises such as these is well-disciplined training at all levels of leadership. It was these same levels of discipline that Captain Ferry found were required during combat in an OOTW mission.

Physical training must also be structured so as to prepare all soldiers for combat, including mechanics, medics, and administrative clerks who will deploy with their units. The soldiers in Captain Ferry's unit experienced sustained combat operations in urban terrain—some of the most difficult combat terrain available—for nine hours, in full combat gear, carrying double basic loads of ammunition. A PT program that involves only stretching, push-ups, sit-ups, and a short run will not prepare a soldier or leader for such operations. Physical training must also include road marches with full combat load including ammunition, flak vest, and kevlar helmet. Bayonet training, obstacle courses, and orienteering events should also be included. This training must be conducted during the day and at night and in all types of weather, and many training events should end in some kind of weapon firing exercise. Additionally, a missed meal will not hurt anyone, and it can be expected that during combat food will not always be readily available at a set time.

What Captain Ferry's experiences reveal in lessons learned for our use as leaders is that we, as infantry leaders and the Army as a whole, must not train soldiers to expect a nine-to-five job, money for college, or a routine, comfortable, and risk-free work environment. We cannot accept or condone low standards of appearance, training, or atten-

tion to detail. We must continue to focus our efforts on building well-trained and disciplined soldiers and units that will be able to withstand the stress and confusion of combat operations and succeed, whether they began as humanitarian operations or as an all out attack by a world superpower.

JEFFREY D. CHURCH
CPT, Infantry
Fort Irwin, California

I thoroughly enjoyed reading Captain Charles P. Ferry's two-part series on his experiences as a rifle company executive officer in Somalia. I would like to offer several comments on a number of the points he makes in the second of these articles.

First, on using "every available training aid to simulate loaded magazines" and the like, I suggest that all Infantry leaders read and study the article "Ammunition: Dummy, Inert, and Simulated," by Captain Derek A.N. Soriano, in INFANTRY, November-December 1987, pages 11-13.

Second, on conducting eight-mile runs, I see no reason for this kind of training for any type of unit. I certainly approve of long marches with proper loads, but this kind of run may eventually do more harm than good. The Army standard, I believe, is a timed two-mile run, and this should be enough to satisfy any commander. If it is not, he should get the standard changed. I would propose that all Infantry trainers become familiar with the three-part series of articles on training and the soldier's load that appeared in the first three 1990 issues of INFANTRY. The articles were prepared by personnel assigned to the Physical Fitness School and the U.S. Army Research Institute of Environmental Medicine.

. Finally, I dispute the company's requirement that its soldiers armed with the M16 carry between 350 and 420 rounds of ammunition. I know they probably needed that much ammunition in one engagement (one that should never have happened). But how many rounds did these soldiers fire in the other engagements? That's an awful load to put on an infantryman, and I really do not believe even 210 rounds should be considered a good basic load. (I've often wondered how many rounds were fired by our individual riflemen in Grenada, in Panama, and Kuwait.) What else did a rifleman have to carry in the way of ammunition? M60 ammunition? M249 ammunition? Concussion grenades?

Captain Ferry speaks of commanders tending to overload their soldiers, or the soldiers tending to overload themselves. I can understand this attitude in this particular unit, but I hope that not all infantry units emulate this example.

ALBERT N. GARLAND
LTC, Infantry
U.S. Army Retired
Columbus, Georgia

I have just finished reading, for the second time, "Mogadishu, October 1993," by Captain Charles P. Ferry. It is a useful and timeless description of how well-led infantrymen can be trained and motivated to accomplish any ground mission. The keys, which are well brought out in the article, are dedicated leadership, live fire training, and motivation.

I congratulate Captain Ferry and INFANTRY on an excellent article typical of the kind infantrymen need for their education.

HARRY M. KEMP
COL, U.S. Army Retired
San Antonio, Texas

WEAKNESSES AND FIXES

I recently came across Robert Gaudet's letter on mortar smart munitions in INFANTRY's July-August 1994 issue (pages 3-4). Mr. Gaudet correctly points out that, in today's more urban mission environment, collateral damage from area weapons is a serious concern. He suggests that smart munitions are the best and most practical firing solution for mortar systems. My experience with field artillery and mortar systems leads me to disagree with this conclusion.

It is true that the field artillery has had success in fielding the M712 Copperhead projectile, but the story does not end there. In practice, most commanders would agree, the expense of the Copperhead renders it impractical as a primary projectile.

There is limited training opportunity and even less opportunity for joint training use. Precision guided munitions require well-trained forward observers (FOs) with stable and secure positions well forward of a normal FEBA (forward edge of the battle area). It is hard to envision such operations in fluid urban battlefields similar to those in Somalia or Bosnia.

More important is the overall expense of the system. Field artillery doctrine requires limited use of smart munitions; the current directive is: "Only high pay-off targets." These targets are normally identified well in advance of the battle and are not left to the observer's discretion.

Well-trained FOs, proper use of meteorological data, and accurate weapon positioning offer a more practical solution to the mortar accuracy problem. Infantrymen should spend a substantial portion of training time working on these skills. The call-for-fire format, estimating distance, sector sketching, sending polar missions, and shifting from known points are currently areas of weakness.

The main weakness with mortar systems is their inability to communicate directly on the fire direction net. If long-range mortar sections were supplied with accurate and timely weather data, system registration would be faster and more meaningful. Incorporating the global positioning system (GPS) into the mortar ballistic computer will allow mortar sections to lay their platoons rapidly and accurately. As a final note, mortar sections should spend more time on coordinated registrations and fire missions.

These changes are inexpensive and

flexible. Once incorporated, they would provide a significant reduction in collateral damage and improve weapon efficiency.

BRUCE C. BLAKEMORE, JR.
1LT, Field Artillery
Indiana Army National Guard

THE STUDY OF
MILITARY HISTORY

I am writing in response to Lieutenant Randi I. Buros' letter on the study of military history in the January-February 1995 issue of INFANTRY (page 3). He has made some good points, and raises some issues that deserve clarification.

We study military history, not because it offers ready solutions to the challenges faced by today's leaders, but because it is fundamental to the professional development of officers and noncommissioned officers. It provides the soldier with valuable insights into the profession of arms, and offers the benefit of experience which has often been gained at terrible cost in men and materiel.

History in general—and military history in particular—is the link between the past and the future, between theory and practice. History broadens our perspective on life, sharpens our judgment, improves our perception, and molds our leadership qualities. Make no mistake about it: history shapes our future, and makes the dif-

ference between success and failure. Our Army recognizes this, and has gone to great lengths to document the lessons learned in past wars. In the field of logistics, the experience of Allied and Axis forces in North Africa contributed a great deal to the organization and conduct of Coalition logistical operations during the Gulf War. Iraqi units, on the other hand, evidently overlooked those same lessons; the breakdown of their logistical system was one factor contributing to their catastrophic defeat.

We must never forget that the one constant in history is the human element. The fundamental issues facing us today are no different from those of the past. While the tools we may use to solve our problems today may be vastly different from those our ancestors used in the past, the process of defining the problem, coming up with viable alternatives, choosing a course of action, and then executing that course of action to achieve success on the battlefield has not changed over time.

As human beings, we tend to be creatures of habit. This means we like to do the same things over and over again. It makes us feel good and secure. In other words, we're comfortable with the known. This also means that history never repeats itself. History is only a word, a noun that means "learning by inquiry." It is we, the creatures of habit, who keep "reinventing the wheel" and repeating our mistakes, simply because we don't like change or fear the unknown. This is a direct result of a lack of historical mindedness.

History can free us from the bondage of fear. It permits us to discover the meaning of the past and relate it properly to the present. A knowledge of the past provides vicarious experience otherwise unobtainable for the soldier. And once we understand our past, then and only then can we chart a good course for the future. For if we don't know where we've come from, and have little idea of where we are now, can we know where to go in the future?

History provides the soldier with valuable insights into the fundamentals of the profession of arms. The comprehensive study of military history is vital to successful leadership and a must for every military leader.

CHARLES E. WHITE
Infantry School Historian
Fort Benning, Georgia

FIRST DIVISION REUNION

The Society of the First Division (Big Red One), which is composed of soldiers who served in World War I, World War II, Vietnam, DESERT STORM, and in peacetime, will hold its 77th Annual Reunion 9-14 August 1995 at the Hyatt Orlando, Kissimmee, Florida.

For information, please write to me at 5 Montgomery Avenue, Erdenheim, PA 19038, or call (215) 836-4841.

ARTHUR L. CHAITT
Executive Director
Society of the First Division
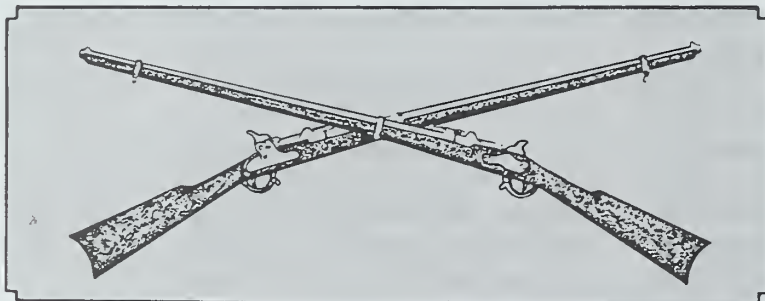
INFANTRY NEWS

THE LONG-RANGE Surveillance Leader Course is presented in two phases. Phase One consists of 37 correspondence sub-courses while Phase Two is a 15-day resident course at Fort Benning. U.S. Army Reserve and Army National Guard personnel must complete Phase One before attending the resident phase.

TRADOC (U.S. Army Training and Doctrine Command) Pamphlet 351-20, *Army Correspondence Course Program Catalog,* April 1995, reflects a correspondence course phase only. That information was correct at the time of revision, but circumstances have changed to permit continuation of the two-phase course, especially for Reserve Component personnel.

THE BATTLEFIELD Distribution System (BDS) is aimed at eliminating choke points that have plagued the Army in its efforts to get critical supplies and equipment to its soldiers on the front lines.

When American forces deployed to Cuba in 1898, their supplies and equipment sat on the docks of Havana until logistics personnel could open crates and identify the contents. Nearly 100 years later, the docks of Dhahran, Saudi Arabia, were clogged with unidentified materiel needed by U.S. soldiers fighting in Operation DESERT STORM.

The new system was created by the Combat Service Support Battlefield Laboratory, Combined Arms Support Command (CASCOM).

With technology used by the transportation industry for several years, Army logisticians will be able to track supplies from the warehouse to the theater of operations to the combat soldiers. The supply distribution system in theater will also be changed.

Logistic operations will be included in the sophisticated communications network of the Army of the future, Force XXI. Army logisticians will also have their own communications channels through which to order, manifest, track, and log the dispatch and receipt of supplies. Laser cards attached to large containers will identify the contents. Hand-held or remote monitors will read the information on the cards

and write new data on them so they can be reused. Bar codes will identify individual items as well as crates of supplies.

The supply support activity (SSA) in the theater can track shipments of supplies moving from the United States to the theater. The manifest or packing list will already be logged into an automated manifest system so the SSA will know what is in the shipment.

When supplies are unloaded at the port of entry, laser cards will reveal the contents of containers and the units that ordered them. Reading the cards will automatically enter the information into the data base for the total asset visibility/in-transit visibility (TAV/ITV), eliminating the laborious

process of manually logging receipt of supplies.

Laser cards and radio frequency tags can easily be made for equipment being sent to various users. This simultaneously creates an automated record of when and how the supplies were dispersed. The supplies can then be loaded quickly and sent on their way.

Another aspect of BDS is the creation of a single distribution manager at each level of theater command who will be responsible for transportation, supplies, maintenance, and other support functions currently handled by different individuals.

While the CSS Battle Lab works to refine battlefield distribution, an effort is under way to properly size the Class IX authorized stockage list (ASL). The ASL will provide 90 percent of the supplies a force-projection Army needs when it is deployed to a combat theater. An accurate ASL is critical to the supply system's ability to activate the procurement and supply system, from factory to port of debarkation to arrival in theater.

The BDS will rely heavily on the Reserve Components (RC) for its success. During combat operations overseas, RC units will operate both the U.S. ports of debarkation and the theater ports of entry.

A SELF SERVE LAUNDRY (SSL) facility for the field has been produced as a quality of life improvement for soldiers in the field. The facility was produced by the U.S. Army Soldier Systems Command (SSCOM), U.S. Army Natick Research, Development, and Engineering Center.

The facility was demonstrated and used in an Advanced Warfighting Exercise in September 1994, and the occupation of Haiti in October presented a

real-time opportunity to test the equipment in the field.

SSCOM sent personnel to Haiti to deliver, set up, and train troops on the SSL. From that time on, it was in use 24 hours a day until the battalion pulled out.

Word of the new SSL then spread to other troops deployed to the Caribbean, most notably to Guantanamo Bay. As a result, instead of being returned to SSCOM as planned, the facility was diverted to Cuba where it was set up for use by soldiers and airmen at Camp Philip, a refugee holding camp.

The soldiers who used the SSL said it was much more effective than earlier field laundry systems. They also commented that they liked the idea of doing their own laundry and making sure all items were cleaned to their satisfaction.

BRADLEY CORNER

The Army and the infantry are moving toward Force XXI, which includes a broad range of missions, severely limited resources, 21st century technology, and short planning and reaction times.

Gunnery doctrine must support whatever future fight our Bradley-equipped infantry units may face. Our soldiers must still be able to acquire, identify, hit, and kill targets with all of their weapon systems. Both gunnery and warfighting skills must be interwoven to produce platoons that can fight and win on the future battlefield. A revision of Field Manual 23-1, *Bradley Fighting Vehicle Gunnery,* supports this goal.

As a result of intensive field input, the revision's initial draft addresses recent and upcoming events that affect the Bradley community. These include the fielding of the M2/M3A2 Operation DESERT STORM (ODS) vehicle, the precision gunnery system, Thru-Sight Video, and the advent of Bradley-equipped air defense artillery (ADA) units. The manual also incorporates Training Circular 23-5, *Bradley Training Devices.*

The revised manual features a two-part design. Part I, the "Crew Member's Handbook," contains vehicle, weapon, and crew-member information. Part II, "Training Manager's Handbook," contains information training managers and master gunners need to plan, prepare, and execute Bradley gunnery and warfighting training.

Training objectives traditionally found in basic gunnery have been moved to preliminary gunnery, and device gunnery has taken the position of basic gunnery in the training strategy. Device gunnery will train crews, squads/sections, and platoons in device-based environments. The integration of the mounted and dismounted elements at this stage provides training that is missing from the current manual. In addition, crew and battle drill training is emphasized.

In the revision process, challenging crew gunnery tasks were identified and crew gunnery exercises developed to ensure that tasks are trained and evaluated with little redundancy between engagements or exercises. The end result is an increase in multiple, commander, and coaxial machinegun engagements. In addition, manual engagements are introduced. Crew gunnery exercises and qualification are assessed using a T-P-U (Trained-Practice-Untrained) system. Engagements tasks are rated T-P-U on the basis of GO/NO-GO standards. Standards are developed for engagement tasks, critical subtasks, and noncritical subtasks. This allows a more detailed assessment of crew duties and provides an evaluation system that can be applied to present and future Bradley variants.

The manual also introduces a change in exercise developments. It maintains a threat-based standard while giving division commands the latitude to tailor engagements on the basis of contingency mission profiles. Division commands determine specific target types and engagement distances based on threat and terrain analysis. FM 23-1 will identify crew task conditions and establish threat-based kill standards.

Platoon gunnery is designed to support mission training plan (MTP) evaluations. This is achieved by developing "penalty matrixes" based on target situation and vehicle and personnel posture at the end of an engagement. These penalties assess realistic vehicle and personnel losses. This is a change from the existing method, which attempts to provide gunnery tasks and standards for every possible situation. The senior evaluators can assess additional penalties based on their observations.

Appendix D of the revised manual contains a sample dismounted training program. This program begins with individual training, progresses through squad and platoon situational training exercises, and culminates in live fire dismount platoon qualification.

The revised manual is smaller and hole-punched to allow use of the green TM binders or the small black binders. This enables soldiers to build their own manuals according to their particular missions—Bradley crew evaluator, Bradley gunnery skills test, range setup, ADA, or cavalry gunnery.

The revision is expected to be completed in June 1995.

PROFESSIONAL FORUM
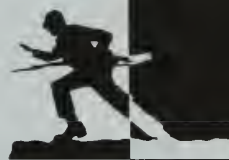
Reconnaissance and Targeting
A Formal Approach

CAPTAIN JOHN W. CHARLTON

Reconnaissance and targeting operations must be carefully planned, coordinated, and monitored. At division or corps level, there is a targeting team, made up of several staff officers and noncommissioned officers, to take care of these tasks. Each of the team members has specific duties and responsibilities, and the team uses a formal approach to identifying, prioritizing, and delivering combat power against high-payoff targets. The G-2 operations staff and the collection managers carefully monitor these operations.

At battalion level, however, no organization or element is specifically tasked with these planning, coordinating, and monitoring functions. Because this responsibility often rests solely with the S-2, many battalions fail in this area. And since the battalion staff does not fully participate in the reconnaissance and targeting effort, these operations are seldom adequately resourced or synchronized. As a result, many battalions do not use their collection assets or use them ineffectively at best.

Field Manual 6-20-10, *Tactics, Techniques, and Procedures for the Targeting Process,* briefly discusses battalion task force targeting, but it does not provide enough information on the mechanics of the process at battalion level. Neither does it cover the synchronization of targeting with the overall reconnaissance and surveillance plan or thoroughly explain the duties and responsibilities that would apply to each member of a battalion targeting team.

A Joint Readiness Training Center (JRTC) example will illustrate these problems:

The battalion must conduct a night attack against a fortified enemy position in 48 hours. The commander has little information on enemy composition, disposition, or strength. He wants the scout platoon inserted immediately to gather information on the objective. The S-2, who also has little information, can only give the scout platoon leader a hasty doctrinal template of the way he believes the enemy will defend.

The scout platoon leader begins his planning. But he cannot complete much of his coordination for fire support and casualty evacuation, because the staff is busy preparing for the battalion operations order (OPORD). He leaves his support requests with the battle captain, hoping they will end up with the right people.

The scout platoon sergeant tries to find trucks to move the platoon to the

forward edge of the battle area where they will dismount and move by foot to the objective area. He cannot get the support platoon leader on the radio and ends up using engineer HMMWVs (high-mobility multipurpose wheeled vehicles) for transportation.

Meanwhile, the platoon leader issues his squad leaders an incomplete fragmentary order (FRAGO), promising to get them more information on fire support, casualty evacuation, and resupply by radio once they are in their squad objective rally points. The platoon leader tells them to brief their squads quickly, because the battalion commander wants them to infiltrate before the enemy has time to establish his defense. By the time they have removed the canvas from the back of the engineer HMMWVs and briefed the drivers on the route, the platoon has missed its departure time.

Then the S-2 and the fire support officer (FSO) say they have a Marine firepower control team and a brigade ground surveillance radar team that they want to infiltrate with the scouts. These teams have the mission of finding the enemy's reserve element and then destroying it using naval gunfire. The scouts will help the teams get to their objective areas. Once in position, all

elements will have to coordinate their activities with one another. Finally, after a two-hour delay, they all begin their infiltration to the objective area.

Units at the JRTC repeat such scenarios with disturbing regularity. Sadly, the result is often the complete destruction of the battalion's reconnaissance and target acquisition assets. The battalion makes the problem worse by failing to attack high priority targets and by assaulting without adequate information on the enemy objective, which leads to heavy losses.

A battalion staff needs to develop a special cell that plans and coordinates reconnaissance and targeting operations at the same time the staff is planning for the unit's primary mission. This staff cell, which can be called the reconnaissance and targeting team (RTT), must have a formal approach to planning and monitoring these operations, and its members must fully understand their duties and responsibilities.

Along with the battalion commander, the S-3 and the FSO are usually too heavily involved in planning for the battalion's primary mission to give the reconnaissance and targeting effort their full attention. The S-3 and the

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FSO are therefore only part-time members of the RTT.

During the staff planning process, the S-3, FSO, and S-2 develop the initial attack guidance matrix and collection plan as part of the wargaming process. They pass this information to the RTT, which coordinates and refines the plan. Battalion reconnaissance and targeting operations are better planned and resourced because the responsibility for

them is given to a specific coordinating element.

At the same time, the team members support the overall plan by performing their routine staff functions. Their activities complement the battalion plan by seeing that reconnaissance and targeting activities are fully coordinated and synchronized with the commander's scheme of maneuver.

The RTT consists of the following members:

Battalion XO. The battalion XO leads the RTT. He has the experience needed to insure the coordination of staff actions. He also has the vested authority to make decisions, which allows the targeting effort to continue even when the commander is not available. The XO gives the RTT additional guidance that will help meet the priority information requirements (PIRs) and identify high-payoff targets.

Battalion S-2. As the collection manager for the RTT, the S-2 coordinates reconnaissance and target acquisition activities by developing the battalion collection plan on the basis of the information requirements. He determines the appropriate collection strategy for answering the requirements and recommends high-value targets. During the wargaming process, the S-2 helps develop high-payoff targets (HPTs) by playing the role of the enemy commander and fighting the most probable enemy course of action (COA). The S-2 also provides an initial event template for the units tasked with conducting reconnaissance and target acquisition to assist them with their missions. Finally, he requests any nonorganic assets needed to support his collection plan.

Battalion fire support NCO (FSNCO). The FSNCO, with guidance from the FSO, is responsible for coordinating fires to support reconnaissance and target acquisition units during their infiltration and actions at the objective area. This lets the FSO concentrate on the battalion's overall fire support plan. The FSNCO also coordinates the movement of fire support assets to support reconnaissance and targeting activities. Finally, he works with the rest of the

targeting team in updating and refining the attack guidance.

Air Force liaison officer (ALO) or enlisted tactical air controller (ETAC). Either the ALO or the ETAC provides expertise on the employment of Air Force assets in support of the reconnaissance and targeting plan. He determines which targets the unit can attack with close air support (CAS) or interdiction and integrates his recommendations into the attack guidance matrix and the targeting team FRAGO.

Supporting arms liaison team (SALT) members. The SALT members work with the FSNCO and the rest of the targeting team by planning, coordinating, and executing naval gunfire missions in support of the RTT plan. They determine which targets the units can attack with naval gunfire and then integrate their recommendations into the attack guidance.

Assistant S-3 Air. The S-3 Air is the RTT's maneuver representative. He takes guidance from the S-3 and makes sure the RTT plan fully supports the friendly maneuver plan. He also coordinates the air movement of collection assets into the objective area. In the absence of an Army aviation liaison officer, the S-3 Air coordinates and monitors attack helicopter operations in support of the reconnaissance and targeting plan. Finally, he is responsible for drafting FRAGOs that implement the RTT plan.

Battalion signal officer. The signal officer coordinates communication support for the reconnaissance and targeting plan. This includes establishing communications procedures and positioning communications assets to support the operation.

Headquarters and headquarters company (HHC) XO. The HHC XO coordinates casualty evacuation, ground transportation, and logistical support for RTT operations. He is ideally suited for this task because he is familiar with the battalion's logistic, medical, and transportation system. In addition, he is often located at the battalion tactical-operations center (TOC), where he can easily keep abreast of other RTT planning activities. Using

the HHC XO in this capacity leaves the battalion S-4, S-1, and medical platoon leader free to concentrate on the overall logistic and medical plan.

Scout platoon leader (or platoon sergeant). The scout platoon leader provides information on scout capabilities and limitations. This helps prevent the scouts from being misused or

For reconnaissance and targeting missions, the commander's guidance takes the form of "risk acceptance," or how much risk he wants units to take in gathering information.

over-tasked. If his scouts have been in the area during previous missions, he can also provide detailed information on the terrain in the battalion area of operations.

The Planning Process

As with any mission, the commander must give the staff members guidance that will help them develop a plan. For reconnaissance and targeting missions, this guidance takes the form of "risk acceptance," or how much risk the commander wants units to take in gathering information. The commander's planning guidance should provide a focus for the reconnaissance and targeting effort, help determine what targets they should consider high-payoff, and help the S-2 develop the battalion PIRs.

The reconnaissance and targeting process should answer four basic questions:

What targets should we acquire and attack, and what other critical information do we need about the enemy to complete our mission successfully? The wargaming process determines which high-value targets will emerge as high-payoff targets. The S-2 begins the process by matching the enemy's most probable COA against the friendly plan. The enemy will react to the friendly COA and commit certain of his high-value targets to defeat our forces. Those

high-value targets are our high-payoff targets because, if we attack them, our chances of success greatly increase. Our reaction to the enemy high-value target, stated in targeting terms, is an attack against a high-payoff target. When determining which targets to attack, the RTT must consider the enemy's COA in relation to the friendly plan.

The S-2's recommended PIRs may include the location of high-payoff targets as well as other aspects of the enemy and terrain. The PIRs complement the commander's guidance to the RTT by establishing a focus for the collection effort. The S-2 must develop specific information requirements for each PIR and HPT, because these are the specific indicators that the collection assets will look for and report. The S-2 analyzes these reports to answer his PIRs and determine the location of HPTs.

When should we acquire and attack these targets? This answer to this question is also largely a product of the wargaming process. We know when friendly action will occur and, on the basis of that and our knowledge of enemy tactics, we can begin to determine when to attack HPTs. The RTT

presents this information in the decision support template and the attack guidance matrix. In some cases, the availability of resources may determine the time when we attack targets. For example, Air Force aircraft may attack certain targets on the first CAS cycle after a collection asset detects them.

Sometimes, the RTT will have great difficulty timing attacks against high-payoff targets. For example, attacking a major enemy cache during a low-intensity conflict may be difficult to time because the unit is not sure when and where they will find the target. In this case, the RTT must have a flexible plan that allows the task force commander to shift collection and attack assets quickly and focus on targets that may suddenly emerge on the battlefield. The RTT should never forget that attacks against HPTs are not random, but must be synchronized with the overall scheme of maneuver.

What assets do we use to attack the target? The objectives of the targeting process are to disrupt, delay, and limit enemy capabilities that could greatly interfere with our ability to accomplish our mission. The RTT must decide the exact effects to be rendered against a
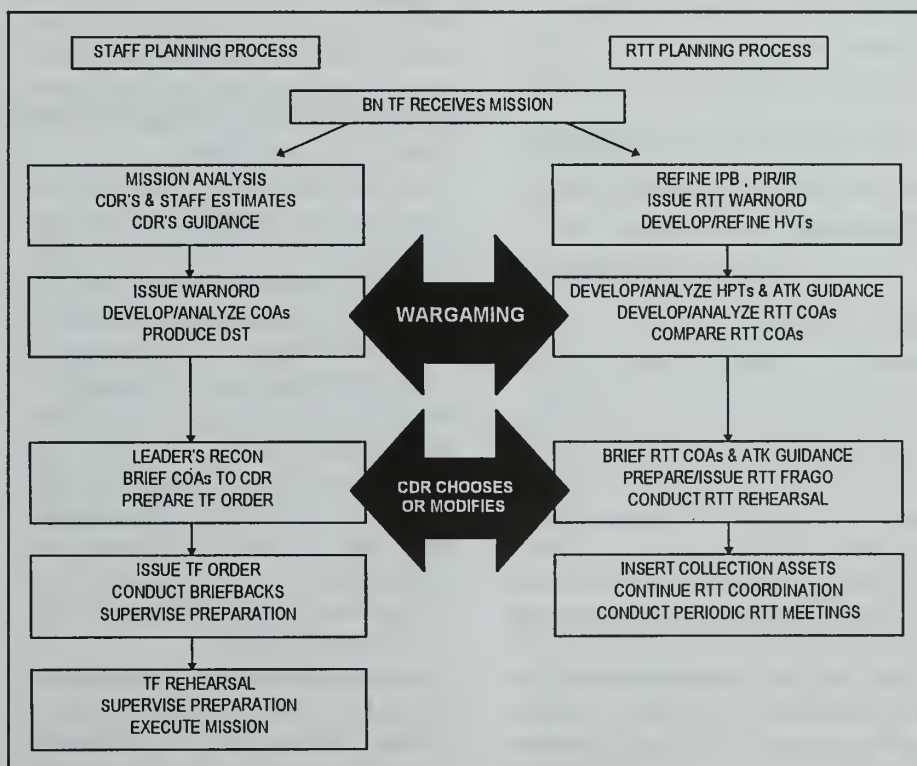

Figure 1. Comparison of Staff Planning Process and RTT Planning.

target and also the best asset to be used in meeting these targeting objectives. This process involves all members of the RTT, because the team can use any number of assets to attack a target.

The following are some examples of ways to attack different targets:

• Jam an enemy command frequency to disrupt his attack.

• Use smoke to obscure enemy observation of a friendly maneuver.

• Fix an enemy counterattack force with direct fire from a maneuver element.

• Direct CAS against an enemy logistics cache.

These examples also point out that *attacking* targets may not mean *destroying* them. Units should attack targets only to the degree necessary to achieve the targeting objectives. Anything more wastes assets.

What resources do we need to support the reconnaissance and targeting plan? This category includes collection assets required by the RTT plan and such resources as transportation, casualty evacuation, and logistics to support them. At the JRTC, units often neglect this planning and coordination requirement. As a result, scouts infiltrate their objective area late, go without water for days, and routinely

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Reconnaissance and targeting are continuing operations; as the overall plan changes, the RTT plan should change as well to support it.

"die of wounds" at the hands of the opposing force.

The RTT also plans for the assets its members will use to attack targets— mortars, artillery, maneuver forces, CAS, and smoke—and must coordinate for any of them that are not organic to the battalion. On the basis of his role within the team, each member of the RTT has some responsibility for coordinating resources to support the plan.

Reconnaissance and targeting planning occurs while the commander and

	Event or Activity	Staff Responsibility
1.	Enemy situation next 48-72 hours	S2
2.	Friendly situation next 48-72 hours including any FRAGOs issued	S3 Air
3.	Status of attack missions last 12 hours and next 12 hours	FSNCO/ALO/ETAC
4.	Status of collection activity last 12 hours including significant reports and dissemination	S2/Collection assets representatives
5.	Review PIR and Attack Guidance – recommend changes	S2
6.	Status of collection asset support including infil, exfil, logistics, casualty evacuation, etc.	S3 Air, HHC XO, BSO,
7.	Update RTT planning and execution guidance	Battalion XO

Figure 2. RTT Meeting Agenda

Figure 3. Example Reconnaissance and Targeting Execution Matrix.

staff plan for the battalion's primary mission (Figure 1). When developing the plan, the team members use many of the products in the standard estimate process, and each produces a staff estimate within his particular area of interest. The team then uses these estimates to formulate, analyze, and compare COAs for reconnaissance and targeting operations. They can apply these same estimates to the COAs for the battalion's primary mission.

The RTT develops COAs that will focus on answering the battalion task force PIRs and locating and attacking HPTs. The process of wargaming will help the team identify important coordination and resource requirements.

The following are some of the criteria the RTT should use to compare and evaluate their COAs:

• How well the COA meets the commander's risk acceptance for collection assets and other assets that support the RTT COA.

• How well the COA supports the overall tentative plan.

• How well the COA addresses the PIR and the attack guidance matrix.

• How well the COA supports timely information collection and dissemination.

• How flexible the plan will be in response to changes on the battlefield.

The RTT must brief the battalion commander, the S-3, and the FSO on their recommended reconnaissance and targeting COA. Once the battalion commander has approved or modified the COA, the RTT must draft and publish a FRAGO that formally implements the plan. A matrix format is best suited for RTT FRAGOs, because it is simple and saves time.

One of the most important functions of the FRAGO is that it officially tasks units to support the reconnaissance and targeting missions. This helps insure that RTT units receive proper logistic, transportation, casualty evacuation, and communications support.

The details of the RTT FRAGO are repeated in the battalion OPORD. The decision support template, the synchronization matrix, and the attack guidance matrix also reflect portions of the RTT plan. This helps keep the battalion commander informed of ongoing RTT activities and ties reconnaissance and targeting operations to the battalion's overall plan.

The RTT members must rehearse their plan, because a rehearsal synchronizes the activities of all recon-

naissance and target acquisition elements. It also helps units understand the RTT plan, the reporting procedures, and the expected locations of other reconnaissance and targeting units on the battlefield. During the rehearsal, unit leaders identify any problems with the plan and with resources. Then the RTT staff can work on solving these problems immediately after the rehearsal.

Reconnaissance and targeting are continuing operations; as the overall plan changes, the RTT plan should change as well, to support it. Certain events on the battlefield may also lead to changes in the RTT plan. For example, a pilot executing a CAS mission in the battalion area of operations may fly over a possible enemy cache site as he is leaving battalion airspace. Then the RTT may decide to shift a collection asset to confirm or deny the target. If they confirm it, the team members may nominate it as a high-payoff target,

which is then plugged into the attack guidance and serviced as part of the updated RTT plan.

To support continuous reconnaissance and targeting operations, the RTT should conduct meetings every 12 hours. During the targeting meeting, the team can refine the current RTT plan, initiate plans for future operations, and monitor the status of current reconnaissance and targeting operations. All members of the RTT must attend these meetings, which should follow a planned agenda (Figure 2).

The members of the team should develop a synchronization or execution matrix for tracking the execution of the RTT plan (Figure 3). They should use this tool to track unit activities, monitor their reporting, check their status, and synchronize their efforts. Finally, the staff should integrate RTT operations into all commander's updates and all TOC shift-change briefings.

The RTT concept recognizes the

need for an element that is tasked with the responsibility for planning and coordinating reconnaissance and targeting. The RTT improves the coordination and synchronization of these activities by spreading the staff work load for them.

This concept formalizes the targeting effort at battalion level and helps insure that the commander's high-payoff targets are quickly identified and attacked. Finally, RTT actions complement the overall battalion scheme of maneuver by providing timely information on the enemy and effectively servicing the high-payoff targets.

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Multipurpose Navigational Aid

CAPTAIN JOHN R. SUTHERLAND, III

When my battalion of the 24th Infantry Division deployed to the Persian Gulf in August 1990, we were issued LORAN (long-range electronic navigation) devices and global positioning systems (GPSs). These technological wonders revolutionized our operations in numerous ways—in training, preparation, and execution.

. We learned early, however, that certain pitfalls awaited the users. Far too often, the key leaders took immediate control of these devices and used them as their personal command and control aids. This kept LORAN and GPS out of the hands of the soldiers and denied

a lot of potential training to those closest to the enemy.

Some leaders became so dependent on their personal locating devices that they hardly knew their own locations without them. They either forgot how to read a map or lost confidence in their personal accuracy. The old map, compass, and pace count or mileage fell by the wayside for many. But there are always times when the satellites required are not available, and this should not be allowed to hinder operations. In short, these devices should augment basic land navigation, not replace it.

A commander who carries a GPS around with him all the time, constantly referencing it, may be tempted to focus on the device instead of on his unit's actions. Although he may know where he is, he will have lost his feel for the battlefield.

I believe a commander should get these devices out first to the fire support officer (FSO) and the platoon leaders, who will be closer to the action. They should also be able to master the devices, develop training based on them, and use them to orient the unit in movement.

Meanwhile, the commander needs to

be orienting his platoons and watching the fight develop. If he needs a precise grid, he can ask for it on the radio net from the junior leader who is tasked with tracking it, the company navigator. I believe the best man for this job is the FSO. He needs to know his location at all times to call for and adjust fires, and he is not distracted by being responsible

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for maneuvering a platoon or company.

As a company team commander, I assigned these devices to my lieutenants with the instructions that they learn them and then help me exploit them. The LORAN readout is in latitude and longitude. We could input about 100 way points, 10-digit grid locations. LORAN could navigate us through the way points, one by one, reporting our direction and distance to each in sequence. We could convert check points on the graphics into way points and move with relative confidence over great distances across the featureless desert floor. This was the first, most obvious use.

In August in Saudi Arabia, however, I realized we weren't going anywhere for a while. I thought there must be some use for this high speed device, even in a relatively static location. It soon became obvious that the LORAN was not for operations alone.

I'm not sure whose idea it was, but we decided to use the LORANs to set up a couple of land navigation courses. The executive officer (XO) and the senior platoon leader laid in the whole course, point by point, using the LORANs and a bundle of pickets. They surveyed in two courses, one to be negotiated mounted with legs of three to five kilometers and one to be covered dismounted with legs of 800 meters to one kilometer. Then they mapped out all the variations, and we began training.

All crews and soldiers honed their desert dead reckoning skills, and I was impressed by the ability to train on a combat critical task on totally accurate courses.

In late September, the task force moved into its area of operations for the defense of Saudi Arabia. The hasty defense phase was over and we moved north, closer to the Iraqi border. Each company established a forward operating base (FOB), a 360-degree perimeter defense. From these bases we could deploy into a number of locations to block avenues of approach from the north. Each commander was faced with three or more defensive options and several counterattack scenarios. The problem was that all the positions needed to be reconnoitered and laid in but could not be prepared, lest we tip our hand. To further complicate matters, each battle position (BP) was to be reconnoitered by leaders in wheeled vehicles only. Vehicle movement was to be kept to a minimum to conserve fuel, rations, and repair parts. Therefore, only the leaders would site the positions and the engagement areas as well. The troops would not see the ground before the fight.

Once again, the LORAN and GPS came to the rescue. I reconnoitered my company BP and assigned platoon positions. The platoon leaders then selected individual vehicle and squad positions. I verified each position, but I also had to know that they could support each other's fires in the engagement area. How could I be sure the artillery targets I planned were the best ones, and how could I lay in good target reference points (TRPs), trigger lines, and solid obstacle plans?

The first BP was 2.6 kilometers long in an L-shape. The engagement area easily extended beyond my maximum range of 3,789 meters.

To verify the engagement area, we used the LORAN. We shaped the engagement area like a range fan and plugged in way points for the corners of the box. We plugged in a series of points to cover our maximum engagement lines—1,000 meters for the coaxial machinegun and small arms, 2,200 meters for the tank

and Bradley main guns, and 3,300 meters for the TOWs. We also plugged in the TRPs and the obstacle start and end points. Each platoon leader then knelt in the center of his battle position. The XO took my HMMWV (high-mobility multipurpose wheeled vehicle) out to each point, outlining the engagement area. He stopped at each point and called to tell us where he was; we checked our maps and verified our ability to see that location. As he drove from point to point, the platoon leaders tracked him and called in when he dropped out of sight. When two out of three reported a loss of visual contact, the grid was taken, and the amount of dead space was measured. The artillery targets were shifted to cover these dead spots, and obstacles were adjusted to push the enemy out of them. We found a huge, company-size dead spot that previously would have gone unnoticed. At the conclusion of this drill, we had a wired and rehearsed engagement area.

I found this technique invaluable. All positions were gridded-in exactly, as were all the targets, TRPs, obstacles, and trigger lines. Since every position in the BP was registered with the FSO,

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calling for artillery would be easy and accurate. Dead space was covered, and no one would be surprised when the enemy dropped out of sight for a moment.

We could also rehearse the fight with the GPS. I regularly used fragmentary orders to move the company out of the FOB and into a hasty defense, based upon intelligence to support enemy reconnaissance inbound at night. My XO and I used our BFVs to replicate enemy reconnaissance vehicles trying to penetrate the defense. The FSO drove my HMMWV out in the engagement area with the GPS. When the platoons

spotted movement in their area, they were to adjust fire off the TRPs that were in place. The FSO used the GPS to move to the area where the artillery was to fall and flash the headlights to give a signature. The platoons could then shift.

These drills were invaluable in forging a proficient combat team. We developed reporting procedures, used fire control based on the TRPs, and practiced calling for and adjusting indirect fire. The GPS gave us immediate and accurate feedback that prevented this from becoming a guessing game.

During the long movements north through Iraq, we covered 80 to 90 kilometers a day, mostly in bad weather and mostly at night, and the solid GPS backup helped increase everyone's comfort level with the situation. The lead platoon leader used celestial navigation. He was checked by the following platoon leaders using LORANs and by the FSO using a GPS, while I used map and compass and terrain association.

The other platoon leaders crosstalked to orient the leader, and every 15 minutes the FSO shot out a grid over the company secure net. We found that

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this redundancy of systems reduced the need to discuss our location, and that forcing the leader and one platoon leader to go without navigational aids gave us an honest broker when satellites were not available. Since the XO and I had no special devices, we could effectively oversee the unit instead of focusing our attention on the employment of the GPS or LORAN. I think I was much more involved with the platoons when I was watching them and the map instead of the GPS.

The GPS also helped us through some terrible weather in Iraq and helped clear up some misleading in-

telligence on key terrain.

When we crossed the border, visibility was 200 meters or less because of a thick sandstorm. By cross referencing GPS locations and orienting on preprogrammed way points, the entire battalion managed to move as a single unit. The GPS allowed us to stay in continuous motion and maintain our tempo. There were no breaks in contact to worry about, even in the bad weather.

Link-ups with fuel and other logistics were easy. These link-ups are normally a nightmare and could easily have been complicated by the long distances between logistics and maneuver units and the fact that we were going to push until forced to stop and fight. No one knew, on any given day, how much pressure we would receive or how far we would push. The two things that kept logistics moving were communications and the pinpoint accuracy of the GPS.

On the second day of the ground war, my unit closed in on our first key objective, a main supply route (MSR) linking the forces at Al Safwan to those at Al Busayah. The 6th French Armored Division and the 82d Airborne Division were to hit Al Safwan and the 1st Infantry Division was to hit Al Busayah. Our own 24th Infantry Division was to occupy a blocking position between them and destroy escaping or reinforcing units from either direction.

To do this we first had to seize an important stretch of road. Aerial photos had given the impression that the road was sunk into a deep gorge 200 to 400 meters wide that could easily be defended by light infantry. We had to assume that by the time we got there, the enemy would know we were on our way and would be lying in wait with a stiff defense, including obstacles and possibly chemicals.

My company was tasked to go into the gorge (only one company team would fit). We were to breach all obstacles so we could use the road as our MSR and then destroy any defenders along the road. As we approached early in the morning and deployed for the fight to come, we were very anxious since opposition had been

light up to this point. When we found a major road but no gorge, I was dumbfounded; I had seen the photos and was convinced that the canyon existed. Since we were alone at this point, I began to wonder if we had strayed off our axis. Since I could see the signature of the battalion over the horizon, I knew we were in low ground, and a

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quick check of the GPS verified our location. The photos had been highly misleading. The canyon we had seen was actually a change in the color of the sand as it sank into a gradual decline of a narrow but gentle valley. The area was not defensible and was not occupied. The GPS helped me stay on course when my senses told me we were way off.

Later that night, the GPS came in handy again. We received a report that our sister battalion had spotted a communications site and was not sure of its destruction. The brigade commander tasked my battalion to launch a platoon-sized raid to go back and hit the site. The battalion had not even travelled near the target—nine kilometers to our rear—and it was pitch dark with a light rain falling. My company got the mission and at 0200 hours I launched a rifle platoon with the XO to carry out the raid while I stayed with the defense. We used the GPS grid given to us for the target and created way points to get us there. The platoon successfully covered the ground to the objective, neutralized the target, and was back before the 1st Infantry Division hit Al Busayah. The use of the GPS boosted my confidence and that of the raiding platoon. No matter what happened, the platoon would be able to return our position, using the GPS.

The GPS proved to be of enormous value in all phases of company operations and training. We used it to hone

individual and collective warfighting skills and to improve movement and mission execution. Our confidence in ourselves and the equipment went up all the time.

We did not, however, allow these devices to supplant traditional land navigation skills or to replace visual command and control. If they are used habitually at the combat training centers and in home station training, numerous other uses for them will be found, and they will be fully realized as combat multipliers.

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Troop-Leading Procedures
A JRTC Observer-Controller Editorial

MAJOR KEVIN J. McKINLEY

What must a company commander do to plan a mission, write an order for it, and prepare his unit to accomplish it? Troop-leading procedures (TLPs) may seem ambiguous when trying to complete this process, but understanding them is essential to success.

During more than two years as an observer-controller at the Joint Readiness Training Center (JRTC), I saw all kinds of commanders, good and bad. I also made mistakes as a company commander, but I hope my observations at the JRTC and the lessons I learned from them will provide some insight into the proper use of TLPs.

Field Manual (FM) 7-8, *The Infantry Rifle Platoon and Squad,* and FM 7-10, *The Infantry Rifle Company,* make up the doctrinal bible at the JRTC. Read them, understand them, and apply them, and you will succeed. Although you may find the reading and understanding parts simple while you're sitting in your office, they may not seem that simple in the field:

For example, you've been operating in the maneuver box for six days. You haven't slept. Your unit just fought a successful defense, but you lost 30 of your soldiers, including your executive officer and first sergeant. Your company is low on chow, and your battalion is having trouble resupplying you with rations and water. The battalion S-3 just called to give you a warning order for a deliberate night attack: *Because you have the most combat potential in the task force, the battalion commander has designated your company the main effort. The battalion order occurs in two hours. Be prepared to attack in 24 to 36 hours.*

Tough situation. Yet this is exactly the situation company commanders often

First, get out a warning order that is as fast and as detailed as possible. Then start a number of actions in parallel.

find themselves in at the JRTC. Where do you go from here?

Go back to the basics. Take that "smart book" from your rucksack and look at the eight steps for TLPs:
- Receive the mission.
- Issue a warning order.
- Make a tentative plan.
- Initiate Movement.
- Conduct Reconnaissance.
- Complete the plan.
- Issue the order.
- Supervise.

Then ask yourself, *Am I doing everything I can do? Are the platoon leaders, platoon sergeants, and squad leaders doing everything they can do? Are we working plans and preparing for missions, or just making our lives harder than they have to be? Are we using common sense? What condition is my company in right now?*

Unfortunately, I can't give exact answers to these questions. There is no secret formula or magic solution that will cause your TLPs to have a positive effect on the execution of a mission, but the eight steps do offer some proven guidelines. The steps can be conducted at the same time; although some naturally come before others, they don't necessarily have to be done in a specific order.

Here are some observations I've jotted down from watching light, airborne, and Ranger companies plan, prepare, and execute their missions:

Use parallel planning and preparation. First, get out a warning order that is as fast and as detailed as possible. Then start a number of actions in parallel. The key here is to get your NCOs involved. Initiative is essential. For example, if you know you're the main effort in the deliberate attack, you can save time by task organizing and

giving your platoon leaders a generic task and purpose before giving your operations order (OPORD). The assault element at the company level in support of the battalion can expect to task organize into three elements—assault, breach, and close support. Before the OPORD is given, each element can rehearse its basic actions and work out some issues. NCOs can get this done for you, with a little guidance. This frees your key leaders to help you wargame your courses of action (COAs). You can save more time by having your NCOs backbrief you and your key leaders on any problems that came up during the rehearsals.

As information becomes available, consider giving more than one warning order to facilitate planning and preparation at the platoon and squad levels.

Pay attention to the analysis of METT-T and COA development. Too often, company commanders only pay lip service to METT-T (mission, enemy, terrain, troops, and time) and COA development. But a good METT-T analysis greatly affects the way you determine your COAs. Although combat situations have no approved tactical solution, company commanders often fix too early on one COA. Platoon leaders should be integrated into the process to help determine the best one. They can give you feedback and provide another view of an issue in a COA that you may not see clearly. But you must ultimately make the decision on the COA you will follow. Company commanders also often forget to plan for their most likely contingency. This is their best guess on what to do if the enemy fails to react as expected, and it should be incorporated into the plan.

In developing COAs, think through the plan from the objective area backwards. Too often, commanders focus on how to get to the objective, satisfied that their units can take care of business on the objective so long as they can get there in one piece. Focus on actions at the objective area, and make this your foremost priority for rehearsals. Don't forget to visualize the mission from start to finish, thinking through the way you plan to engage the enemy with more than one asset to make the most of your combat potential.

Don't overtax your best platoon. Frequently, a commander fails to analyze the "T" for troops during his METT-T analysis. He overtasks his best platoon, which blurs task and purpose for the platoon leaders and burns them out. Stress and lack of sleep will affect key leaders, even in your best platoon, and this fatigue will eventually translate into a lack of detail in their planning and preparation. Give task and purpose clearly and concisely, and make it part of your initial briefbacks after the OPORD. Rotate the platoons through the difficult missions. They may surprise you.

Use formatted orders and annexes. Using blank, disposable OPORD formats and annexes eases the pain of having to memorize them. Pre-formatted orders can save you time and, if the for-

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Don't forget to visualize the mission from start to finish, thinking through the way you plan to engage the enemy with more than one asset to make the most of your combat potential.

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mat is complete, will include all aspects of the order. This includes warning order formats and annexes for movement by air, truck, or foot. Also consider formatting blank execution matrixes inside the OPORD, but keep them simple.

Coordinate with adjacent units. You have to know what the unit next to you is doing. If you don't, the synchronization the battalion is trying to achieve is likely to suffer.

FM 7-8 is an excellent reference for adjacent unit coordination. Include the format in your tactical standing operating procedures (TACSOPs), and include the guidance in your planning. This coordination will fill in the gaps in the plan and make it easier to synchronize, especially when rehearsals are conducted along with the adjacent unit.

Make it a priority in your planning, especially if your unit's actions depend on what the other unit must be able to accomplish, or vice versa.

Prepare a detailed schedule. A detailed schedule is the most effective TLP tool. If you can hold your unit to the task and timeline in planning and preparing for the mission, you will be more effective during the execution. Three techniques in this area may help:

First, link a detailed time schedule to tasks in the warning order. This includes responsibilities given for the OPORD paragraph, terrain model, or concept sketch preparation, soldier's load, route planning, annex preparation for movement, any generic rehearsals (or individual task refreshers such as preparing fighting positions or making range cards in the defense), and OPORD time.

Second, reverse the time schedule in the OPORD, beginning with the jump-off time and working backward. This not only gets the company focused and organized, it also allows the NCOs to fill in the blanks for their own preparation of soldiers for the mission. Squads and platoons need time blocked off for them; they are the elements that will be doing the fighting on their level after the first rounds are fired. Remember to include rest plans in this timeline, or your soldiers will do it for you at a time you haven't planned. This is the time to get your NCOs closely involved, because it's where you need their help the most. If you can keep them focused here, your execution will benefit greatly.

Last, check on the progress of your timeline periodically, and readjust priorities on the basis of the time that is left. Situations will change, distractions will occur. Based on what you've accomplished so far, determine how much time is left to get ready and redo your preparation task priorities to get the most mileage out of the preparation. One technique is to call your key leaders together, find out their status, make your adjustments, then put out the updated timeline. Stay focused on the most important priorities of work, especially during your preparation of the defense. Priority tasks on the

timeline are rehearsals and inspections. Never scratch them.

Prepare and review your TACSOP. A simple, concise, and workable TACSOP eases the burden of planning and preparing. It can get the company on line on how you expect business to be done in the area of TLPs. The TACSOP should be a living document. Review it constantly, but avoid the temptation to keep it in draft form. Ensure that it supports the battalion TACSOP. Periodically, give your key leaders quizzes on it.

Remember that a TACSOP is ultimately what you do, not what you've written. Its ultimate purpose is to standardize actions within your company and make them routine. You must train your unit in its use before you begin combat operations. A TACSOP is supposed to save you and your unit time and effort, not burden it. Word-of-mouth procedures don't work, and making up a technique is just a quick fix.

You might consider putting the following into a TACSOP to facilitate TLPs:

• Designate key leaders and soldiers to help you in planning the route and route reconnaissances from assembly area to attack position; making concept sketches or terrain models; writing paragraphs four and five of OPORDs; directing initial guidance on soldier's load; preparing formats for briefbacks; and conducting inspections. This delineation of responsibilities establishes the standard you expect to see in practice.

• Give the NCOs a focus during preparation. This TACSOP focus sets forth the tasks you expect your NCOs to perform during TLPs. These can range from ensuring that soldiers are kept informed of the situation to supervisory standards during rehearsals and inspections. Your NCOs will exhibit the initiative to accomplish TACSOP tasks with little or no supervision. All they need to give them the necessary focus is the TACSOP, plus training.

• Include individual task training—TACSOP-directed tasks that can be rehearsed, on the basis of the time

available and the type of mission to be conducted. Don't assume your soldiers can construct individual fighting positions to standard if you haven't trained them on it lately.

The individual tasks your company rehearses should depend on the nature of your mission. For example, you can designate that all soldiers will review making range cards and constructing fighting positions in the defense as a task within the timeline. NCOs can make this happen. It will both tighten the defense and increase the probability of survival for your soldiers.

You don't have to make this a time-consuming task. The intent is to reinforce the critical basics that can sometimes sway the fight for either side.

At the squad and platoon levels, briefbacks provide another form of rehearsals that may be conducted along with inspections. AT company level and above, they're part of the planning process.

At the point of decisive action, the side that best executes the basic tasks often wins the fight.

Conduct multiechelon rehearsals. I observed a company commander conducting a key leader rehearsal with his platoon leaders while the NCOs conducted rehearsals of consolidation and reorganization, casualty evacuation, running the casualty collection point, doing mortar battle drills, and the like. The unit had previously conducted rehearsals of a generic nature unique to the mission. When the company's key leaders were ready, the soldiers did a walk-through, then a run-through, rehearsal of the mission.

That night, the unit conducted another walk-through rehearsal, then a full-force, full-speed rehearsal using the same rotary wing aircraft (previously coordinated) that would be used in the actual mission. Actions included pickup zone operations, actual flight, landing zone operations, movement to the objective, and actions at the object-

ive, including consolidation and reorganization. They went so far as to use support troops to role-play villagers and U.S. citizens. The actual mission was a great success, accomplished exactly as intended with little loss of life.

In conducting rehearsals, you can use your own imagination, within the time and resources available. The standard to strive for is full-force, full-speed rehearsals, with all attachments, during the same time period as the actual mission, and on similar terrain. The quality of these rehearsals is paramount. Badly conducted rehearsals only confuse soldiers and lead to badly executed missions.

Conduct effective briefbacks. Platoon leaders should expect to conduct two sets of briefbacks before their OPORD. Too often, briefbacks become wargaming sessions, or time for the company commander to clarify his plan, but this is not the intent. The briefbacks are intended to help the company commander see how well his key leaders have understood his message.

The first briefbacks should be in some type of format so that both the briefers and the commander know what's to be expected. Briefers should be given a small amount of time to gather their thoughts in the suggested format, and this format can be made part of the TACSOP.

The intent for the second set of briefbacks is twofold: First, leaders can explain their task organization, concept, and maneuver to the commander so he can ensure that these will support what the company is trying to achieve. Second, the commander can share any updated information he may have received about the situation, changes that may affect the company concept and, in turn, the platoon concept as well. At least, this will enable the platoon leaders to adjust their plans before giving their orders. This is also a good time for the commander to confirm any synchronization issues between the platoons.

All platoon leaders and other key leaders should be present in both briefbacks so that each element knows what the others are doing. Final internal

coordination between platoon leaders may be discussed at this time to further synchronization.

Conduct inspections. FM 7-8 provides an excellent discussion of inspections, including their frequency and conduct. At the squad and platoon levels, briefbacks provide another form of rehearsals that may be conducted along with inspections. At company level and above, they're part of the planning process.

Initial inspections should identify shortfalls that may make execution less effective, and on-the-spot corrections are performed accordingly. In any case, a standard needs to be set on the conduct of both the initial and the final inspections, and this should be specified in your TACSOP.

The initial inspection is run by NCOs. Leaders note shortfalls and give time for corrections before the final inspection. NCOs quiz soldiers on mission, intent, and concept. Special teams—aid and litter teams, prisoner and search teams, demolition teams—are quizzed on their anticipated duties. This is also a good time to update soldiers on any changes in the situation. When casualties occur, some of those soldiers you briefed may find

themselves in charge of their teams and squads.

The platoon leader or the appropriate section leader should conduct the final inspection. He should spot-check special equipment and quiz selected soldiers on what the unit is about to do. He should check, too, to see how effectively his NCOs have disseminated the platoon plan. The senior leader in the element absolutely must be confident that his soldiers know what goal the unit is to achieve.

Conduct reconnaissances during planning. At times, there may be an opportunity to recon the ground during a phase of preparation and before the OPORD is issued. This is especially true before the defense, when the unit is already in the general vicinity of the area they'll be defending. Platoons can be given tentative locations in a warning order or fragmentary order. Before occupation, they can move up, temporarily secure the area, then conduct a cursory reconnaissance that may help them in planning. After the company's key leader reconnaissance, the platoon leaders can conduct a detailed key leader reconnaissance to confirm their plans. Even squad leaders may have a chance to take their squads up to show

them the ground before the platoon OPORD. The key here is to make the best possible use of whatever time is available. Although this is just an example, there are many opportunities to take the initiative in furthering your preparation.

Any idea that contributes positively to execution should be incorporated into your TLPs. Use your TACSOP to get the most out of your tasks and the time available. On the other hand, don't stifle initiative by being so structured in your TLPs that there's no room for deviation.

Rest plans are a must. Effective planning and preparation will promote initiative, set standards, use time to the advantage of the unit, and substantially increase the probability of success in execution. Ultimately, effective planning and preparation will cause your unit to ensure that it has the necessary combat potential at your decisive point when and where it's needed, and it will save lives.

Major Kevin J. McKinley recently completed an assignment as a maneuver observer controller at the JRTC and is now on assignment with the Saudi Arabian National Guard. He previously served in various light and mechanized infantry assignments in the 3d Armored Division and the 7th Infantry Division.

Automatic Grenade Launchers
Prelude to the Future

STANLEY C. CRIST

In September 1989 the United States Army published its Small Arms Master Plan, part of an ongoing effort to develop the ultimate weapons for infantry combat. The plan focuses on fielding and improving current

weapons—the MK 19 Mod 3 grenade machinegun, the M249 machinegun, the M16A2 rifle/M203 grenade launcher, M24 sniper rifle, M4 carbine, M9 pistol—while developing a three-member family of future small arms.

The proposed Objective Family of Small Arms would consist of an individual combat weapon, a crew-served weapon, and a personal defense weapon. At this stage, it is anticipated that both the individual combat

weapon and the crew-served weapon will use bursting munitions; in one sense, then, these future weapon systems could be considered direct descendants of present-day grenade launchers.

The high-velocity 40mm grenade was originally developed for use by Army helicopter gunships during the Vietnam War. The MK 19 grenade machinegun was actually created, however, to give the Navy's river patrol boats more firepower and has since been fielded by the Army, the Air Force, and the Marine Corps as well.

The MK 19 Mod 3 is an excellent weapon, one that can deliver suppressive fire on area targets out to more than 2,200 meters. The high-explosive, dual-purpose (HEDP) round reportedly can penetrate two inches of armor, which should be more than adequate against light armored vehicles. The canister ammunition that is said to be under development would give the weapon a tremendous short-range, antipersonnel capability.

The MK 19's strong points can be fully exploited when it is employed as a vehicle-mounted weapon. It has been used as the primary or secondary armament on a wide array of combat vehicles, including tanks, helicopters, armored personnel carriers, river boats, and dune buggies.

The weapon's primary drawback is its weight. The gun weighs 75 pounds, the M3 tripod weighs 44 pounds, and each 20-round belt weighs 15 pounds. This makes the 40mm grenade machinegun impractical for dismounted infantry in fast-paced, offensive operations.

The former Soviet Union adopted an automatic grenade launcher—the 30mm AGS-17—in the mid-1970s. First gaining notice during the Soviet intervention in Afghanistan, the AGS-17 has been found in various third-world conflicts. At 1,700 meters, the high-explosive (HE)/fragmentation round has a shorter maximum range than the U.S. 40mm grenade, but its casualty radius is comparable. Canister and

U.S. 40mm Mk 19 Mod 3 grenade machinegun mounted on the M3 tripod.
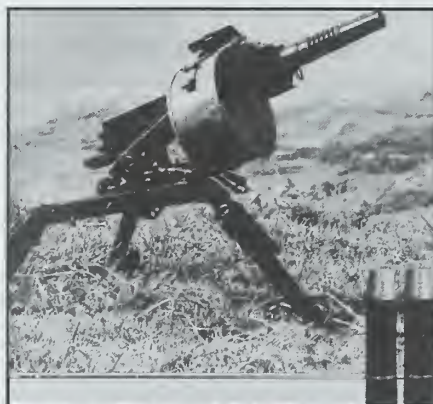
Russian-designed AGS-17 automatic grenade launcher. Inset shows the 30mm ammunition.

Chinese Type W-87 grenade launcher with 12-round drum magazine in place.

Shaped-charge ammunition has been manufactured for the AGS-17, too, giving it a tactical flexibility similar to that of the MK 19.

Unfortunately, the AGS-17 also has another characteristic in common with the MK 19, which is its weight. The gun and tripod together total more than 100 pounds, making it better suited to firing

from the turret of an armored vehicle than by foot soldiers in pursuit of guerrillas. In recent years, the Chinese have copied the AGS-17, and this 30mm grenade launcher can be expected to attain even wider use around the globe as a result.

The Chinese have also developed the 35mm Type W-87 select-fire grenade launcher. Since its round is launched at less than 560 feet per second, this weapon would have to be placed in the medium-velocity category. Its maximum range is listed at 1,500 meters, with an effective range of 600 meters. Two types of ammunition are produced for the W-87—HE and HEAT (high explosive antitank). The HE round, consisting of an explosive charge surrounded by 400 3mm steel balls, has a casualty radius of approximately 10 meters. The shaped-charge round is said to be able to penetrate more than three inches of steel armor.

What is surprising about the Type W-87 is the physical contrasts between it and the American and Russian grenade launchers. While the MK 19 and the AGS-17 are heavy, belt-fed, tripod or vehicle-mounted weapons, the W-87 is extremely light (26.4 pounds), magazine or drum-fed, and made to be fired from the shoulder (it has a pistol grip, buttstock, and integral bipod). It also has a tripod for ground use that is also designed to double as an antiaircraft mount.

The tactical advantages of such a weapon for light infantry could be enormous. Indeed, if the Type W-87 grenade launcher performs as specified, it would seem to be a prime example of the "leap-ahead" technology sought by the Small Arms Master Plan. If the Plan's future crew-served weapon is to become a reality, U.S. manufacturers must develop a weapon system whose capabilities include the advantages of the Type W-87.

Stanley C. Crist served as a scout section leader in the 3d Battalion, 185th Armor. He has written numerous articles on small arms testing and evaluation, some of which have appeared in INFANTRY.

FIFTY YEARS AGO IN WORLD WAR II
March-April 1945

By the early spring of 1945, World War II was drawing to a close, and the territories under Axis control had shrunk dramatically. The hard-won initial landings against stubborn Japanese resistance had led to successive Allied victories at sea, on the mainland, and on the island chains of the Pacific. In Burma, Indian Army divisions were inflicting devastating defeats on Imperial Japanese forces, while U.S. Marines eliminated enemy resistance on Iwo Jima and U.S. Army forces continued their liberation of the Philippines. The U.S. XXI Bomber Command stepped up its campaign against the home islands of Japan. In Europe, the capture of the bridge at Remagen dealt Germany a crippling blow, while U.S. bombers conducted massive operations in support of Russian ground forces. The powers that had unleashed the war so confidently half a decade earlier had long since realized that victory was beyond their grasp, and that even hope of their survival was fast fading.

These and other highlights of World War II are excerpted from Bud Hannings' *A Portrait of the Stars and Stripes, Volume II*, available for $50.00 from Seniram Publishing, Inc., P.O. Box 432, Glenside, PA 19038.

2 March *The XI U.S. Corps recaptures Corregidor, while the XIV Corps eliminates the last Japanese resistance in Manila.*

7 March *The 9th Armored Division captures the Ludendorff Bridge at Remagen, the sole remaining intact bridge across the Rhine. The seizure of this bridge leads to the capture of more Germans than were taken prisoner by the Russians on the Eastern Front.*

10 March *At 0300 hours, two companies of Japanese infantry assault Company A, 127th Infantry regiment, 32d Infantry Division. They first hit a three-man outpost, killing two of its soldiers. The third soldier, Private First Class Thomas E. Atkins, holds his position although badly wounded. By 0700 he has fired more than 400 rounds from three different weapons, and 11 enemy dead lie in front of his position. During a lull, he leaves to get more ammunition, but medics insist upon holding him for treatment. While he is being treated, another Japanese soldier enters the area; Private Atkins grabs a rifle, kills him, and proceeds to repel still more enemy who have penetrated the platoon's perimeter. He is later awarded the Medal of Honor for his deeds.*

28 March *Hitler relieves General Heinz Guderian as Chief of Staff. Guderian is the last of the senior general officers of the early years of the war to be dismissed.*

1 April *U.S. forces land on Okinawa following an intensive naval and air bombardment by ships and planes of the Fifth Fleet.*

7 April *A Japanese armada, led by the battleship* Yamato, *is spotted by U.S. warplanes and attacked as it advances against American naval forces in the China sea. The* Yamato, *one light cruiser, and four destroyers are sunk before reaching the U.S. fleet.*

16 April *The 7th Armored and 99th Infantry Divisions accept the surrender of more than 20,000 German prisoners each, including the Iserlohn Garrison.*

25 April *President Harry Truman is informed by British Prime Minister Winston Churchill that Heinrich Himmler—claiming that Hitler is incapacitated and he is now speaking for the German government—has agreed to surrender all troops on the Western Front.*

COMMAND AND LEADERSHIP

COLONEL KARL W. EIKENBERRY

General George S. Patton, Jr., once said, "Leadership is the thing that wins battles...but I'll be damned if I can define it." Indeed, the successful practice of the art of command is so closely related to the personality of the leader, the characteristics of his unit, and the nature of the mission that we should remain skeptical of anyone peddling laundry lists of "universal truths" on the subject.

When studying leadership, it's often helpful to separate what Stanford University Professor James March calls the *plumbing* (the technical skills) from the *poetry* (let's say, for

lack of a precise term, the motivative or "people" skills). Our Army does an admirable job of teaching the technical skills to officers and noncommissioned officers (NCOs) through formal, progressive schooling and highly sophisticated unit training. Today, those who are entrusted with the responsibility for leading soldiers can rarely, if ever, claim they lack the technical competence. Moreover, superiors and subordinates alike generally give leaders some room in which to develop their plumbing expertise by trial and error. A newly assigned platoon leader who has nothing to learn tactically should be made a company commander instead.

On the other hand, the poetry of leadership remains difficult to define. Being highly dependent on its context, it is not easily taught. Nevertheless, it must be practiced, and reasonably well, immediately upon assuming command. The leader's every pronouncement of his ends and means and his every contact with his subordinates create and sustain what we know as the command climate.

In this article, I want to discuss some of the particulars of the poetry that are relevant to commanders and leaders within a battalion. Assuming that the general principles are well-understood, I will examine instead some techniques that officers and NCOs may find helpful as they go about the critical leader task of getting soldiers to accomplish the mission.

Specifically, I will offer some thoughts on how leaders might structure and improve some of the more important ways of influencing those under their charge. These include the following:

• Completing officer and NCO efficiency reports.

• Using (and abusing) standing operation procedures (SOPs).

• Creating meaningful opportunities to get to know subordinates and communicate with them individually.

• Selecting the proper means of transmitting instructions and orders.

• Creating an environment in which "getting better" takes precedence over "looking good."

• Publishing a command philosophy.

This is, admittedly, a random assortment of topics. Nevertheless, the reader will still find this approach useful if he bears in mind that my intent is not to talk in terms of grand leadership theory but to focus on practical approaches to some very real daily command challenges and problems.

If we regard the poetry aspect of leadership as a form of art, what follows might be regarded as a somewhat loose essay giving advice on the selection of paints and brushes:

Efficiency Reports. There can be little doubt in the field that accurately written officer and NCO efficiency reports have a tremendous effect on the long-term health of the Army, the career prospects of the individuals, and the morale among the leaders of a unit. Volumes have been published on the mechanics of preparing efficiency reports. Unfortunately, less emphasis has been placed on efficiency report counselling.

Many leaders tend to sign, seal, and deliver personnel reports without ever discussing the contents with those concerned. The common excuse is lack of time; a better explanation is probably that most are uncomfortable with telling a subordinate face-to-face how he measures up. Surprisingly, the desire to avoid direct confrontation often prevails, regardless of the evaluation rendered. If a report correctly reflects substandard or even average achievement, a leader may find it tough to look that person in the eye and state the facts. If the report has been inflated, a leader usually wants to avoid the professional dissonance that comes from telling a mediocre soldier he is a superstar. Similarly, the leader is uneasy with efforts to tell the real workhorses and thoroughbreds they are well-regarded and being appropriately rewarded when it is common knowledge in the unit that he has never met a subordinate he didn't think was a "top block."

The moral of all this should be apparent. A rater or senior rater must always formally counsel a subordinate before sending forward an efficiency report. The following procedure is recommended:

First, schedule the counselling session several days in advance. This gives both the (senior) rater and the ratee a chance to organize their thoughts. Discussions on efficiency reports are far too serious to become casual ("Come on in . . . I have something I want to talk about") affairs.

Second, begin the session by allowing the subordinate to read the completed report carefully and then bring any mistakes to your attention. This yields two benefits: the possibility of surprise (not a virtue in this case) is eliminated, and any lingering grammatical and typographical errors are often discovered before it's too late.

Third, a senior rater, when counselling junior officers, should complete his potential-block rating in their presence and tell them what his profile looks like at the time the reports are closed out. I'm not optimistic that such a recommendation will ever be put into practice. To do so would either end evaluation report inflation or force senior raters to admit that inflation is a way of life in their commands. Neither outcome would be palatable to most commanders or senior staff officers.

Still, for those who do elect to do business this way, there is much to be gained. Such a methodology imposes some control on inflationary tendencies (a commander doesn't like the thought of telling an extraordinary platoon leader he's a "one-block"—just like 38 out of the other 40 lieutenants rated to date). Moreover, through such an open approach, senior raters are setting an example for their junior officers to be up front in their leadership style and not to duck controversy. It is hypocritical for a senior leader who is unwilling to discuss his profile directly with a subordinate ever to claim that this same subordinate is unwilling to take responsibility for his actions.

Fourth, the substance of the counselling session should be the rater's comments on the areas the rated officer should sustain or improve upon. The latter should apply even to the best and the brightest, as we are in the business of always striving for excellence. Such counselling can be done well only with some advance homework, since specifics are powerful

medicine (for example, "On the air assault operation during the June battalion external evaluation, I noted . . . ."). At the same time, the rater should consider directing the subordinate to include one or more of the "needs improvement" items he identifies on the subsequent support form.

Fifth and finally, after completing his portion of the efficiency report, the rater should schedule an appointment with the senior rater to discuss his evaluation. The rater should personally provide the senior rater with an approved support form, his rater input, and a concise, well-thought-out verbal summary of his assessment of the rated individual. Moreover, he should offer his judgment, based upon his

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There is absolutely no positive correlation between the volume and density of a unit's SOPs and its combat readiness.

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knowledge of the senior rater's "track record," of how his superior should go about completing his own portion of the rating. If a senior rater is not open to such an initiative (most are), at least, a handwritten note from the rater to the senior rater attached to the efficiency report can capture the essence of what has just been described.

On the other hand, senior raters should require those under their charge serving as raters to comply with the above procedures when submitting efficiency reports. When such a system is adopted, leaders are forced to take personnel reports more seriously, develop a greater sense of responsibility for their subordinates, and think one level higher.

Standing Operating Procedures. Contrary to what some leaders believe, there is no positive correlation between the volume and density of a unit's SOPs and its combat readiness. If anything, the relationship may be a negative one. We need to bear in mind that both tactical and administrative SOPs are devised to facilitate command and control, as well as to allow the practitioner to concentrate on the novel aspects of a situation. SOPs are not an end in themselves.

Those who, upon assuming command, spend hours fretting over an absence of explicit rules are usually wasting valuable time over precious little. *A War and Peace*-length motor pool SOP, for instance, often tells us little that isn't already made clear in official publications and divisional directives. Is a battalion such a complex organization that chapters need to be written governing motor stables? Articulating standards (mission guidance) is essential; but telling NCOs in painful detail how to achieve such standards only encourages rigidity and an emphasis on compliance and stifles attempts to nurture initiative and an innovative spirit.

Admittedly, certain SOPs are required by regulation (physical security, for example). And certain processes are so clearly superior (in terms of safety, outcomes) that leaders are correct in codifying them as rules or SOPs. Given the daily flux of training schedules, however—as well as our need

to produce thinking, resourceful junior leaders—we are best advised to keep formal SOPs to a minimum, while clarifying the expected standards. Although a high-performing unit does have prescribed ways of doing business at any given time, the rules will be internalized and dynamic.

But we should distinguish between counterproductive SOPs and rules that are established to improve discipline and cohesiveness. Policies that emphasize compliance with certain standards of appearance or conduct designed to further the unit's sense of collective identity are fundamental to group success. A leader taking charge should be concerned if no one has answers to the seemingly mundane questions of the established physical training uniform, the motto soldiers should say when saluting, the rules concerning the wearing of the kevlar helmet in the field, and so on. These constitute the "who we are" rules that make a company a family, determined to stand together. Such policies are not as "rational" or "scientific" as a maintenance SOP that tells the soldier how to dispatch a vehicle, but they are ultimately much more important to our success in combat.

To summarize, leaders should set standards, then get out and help subordinates attain those standards. Codifying them in elegant prose is not a wise expenditure of mental energy. Von Moltke's famous expression, "No plan survives contact with the enemy," is instructive. Within a battalion, commanders should write down things that pass the common-sense test by which we evaluate the utility of SOPs, and then publish in concise form those few policies that help mold the unit's personality in the image they seek. To go much beyond is to risk infusing a combat unit with an administrative spirit.

Finding Opportunities to Get to Know Subordinates. The adage "know your subordinates" is easily said but not so easily done. Leaders have tremendous demands on their time. They are often consumed with meetings, heavily involved with training (if not, they should be), fighting fires, and hopefully reserving time for their families. Undistracted moments are rare, and distracted moments are not conducive to the kind of relaxed setting that promotes candor and understanding. It's ironic that squad leaders are often

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Leaders should set standards, then get out and help subordinates attain those standards. Codifying them in elegant prose is not a wise expenditure of mental energy.

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criticized for not knowing their soldiers, while little thought is given to the need for a more senior leader to get to know his subordinates.

We should say at the outset that leaders should choose the proper place and time. Maintenance is discussed during motor stables and marksmanship at the weapons qualification range; these are not appropriate times and places in which to ask about personal matters, except under unusual circumstances. By remaining absolutely focused on the task

at hand, leaders help create a no-nonsense, highly professional approach to unit training.

How, then, do we solve the problem? I can suggest three possibilities:

First, a leader might invite subordinates individually to breakfast or lunch in the dining facility. Leaders should periodically eat in the dining facility, of course, and it's good for soldiers to see their officers and NCOs doing so. Beyond this, however, a meal shared with a subordinate provides a 45-minute uninterrupted occasion for one-on-one conversation. Much can be learned about a subordinate personally and professionally if a leader encourages him to open up.

Second, a leader might have a subordinate accompany him on a visit to the field and, with both sitting in the rear seats of the vehicle, use the travel time to talk. For example, a battalion command sergeant major might have the S-2 NCO in charge join him for a trip to the field to observe scout platoon training. The time on the road and in the woods will be productive for both.

A third suggestion is to take advantage of social gatherings, but there are some limitations here. First, when subordinates are brought together, a leader should concentrate on building camaraderie and not spend undue time with any one person. Second, if the soldiers' spouses, relatives, and friends are present, the leader needs to spend time expressing his appreciation for their support and letting them know their husbands, sons, or friends are doing a good job. Lastly, while leaders can invite subordinates and their spouses to their homes, such an environment doesn't facilitate professional communication. Moreover, if the number of guests is limited to improve the chances for deeper conversation, a leader might spend most of his time (and that of his family) entertaining separate groups. In brief, social get-togethers help build teams, but they shouldn't be considered a substitute for finding ways to really get to know subordinates.

A final note concerning one-on-one opportunities with subordinates. Doing a bit of advanced mental preparation is helpful. Leaders shouldn't show up without an agenda. A few minutes of reflection on the subordinates' personal and

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A meal shared with a subordinate in the dining hall provides a 45-minute uninterrupted occasion for one-on-one conversation.

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career matters, informal counselling matters, and issues upon which his advice and feedback are sought will ensure excellent returns on the investment of time. (It's embarrassing not to recall the name of a soldier's spouse, or the fact he was just selected for promotion.)

Transmitting Orders and Instructions. We know that leaders who remain prisoners of their command bunkers or tactical operations center have little, if any, grasp of their unit's actual situation. Written instructions and structured

briefings have their place in communicating a commander's orders and intent. But they only supplement leading from the front; they don't replace it.

The more routine and administrative the process, the more a leader can (and should) rely on written or electronic communications. Most of the staff transactions within units fall into this category (awards, efficiency reports, clearances, ammunition requests, inventories). On the other hand, the more context-specific the process—or the more uncertain a leader is of the best way to achieve the desired result—the more he should orchestrate action from somewhere outside his headquarters.

Written instructions and structured briefings have their place in communicating a commander's orders and intent. But they don't replace leading from the front.

To illustrate, let's consider after-action reviews (AARs). A commander should have very specific ideas of how he wants AARs conducted within his unit—site selection, format, visual aids, attendees; the list of inputs is not a short one. When we consider the number of variables—size of the unit, live or blank fire exercise, terrain, time available, and so on—it should become obvious that libraries could be filled on the subject, and even then without exhausting all of the possibilities.

A well-planned officer and NCO professional development class (including a demonstration) is a starting point. But the AAR is an art form that can be improved upon only through practice. A commander or senior NCO who devotes time in the field to carefully observing AARs, and then critiques, coaches, or even interjects to teach by example, is communicating that which simply cannot be transmitted effectively on paper.

In a sense, office automation has been a mixed blessing for combat units. Clearly, it has improved staff productivity in the performance of the routine tasks referred to earlier (although it has also generated a demand for more and more information). At the same time, it has led some commanders to feel they can effectively lead from a work station, engaging in what we once called "management by memorandum." But computers don't give us bad news, let us know our standards cannot be attained (or are being ignored for lack of supervision), or challenge our authority.

Unless a leader is vigilant, computers are also addictive. If commanders, staff principals, first sergeants, or junior leaders are seen in front of monitors for more than a few minutes a day when "real" soldiers are outside their offices trying to accomplish (or perhaps avoid) real things, with real resources, something is seriously wrong. The terminal is the place of duty of the supply or prescribed load list specialist, not an experienced leader. If leaders feel complelled to type away, a computer is a timesaver, but it should be used after duty hours or on weekends. A command that gets this wrong

in garrison will almost certainly have a "bunker" mentality in the field.

"Getting Better" and "Looking Good." Two of the most vexing problems a leader faces are these:

- How does he continually encourage better performance without seeming unappreciative of what is being done well?
- How does he react to visits from higher level commanders and outsiders?

The two problems are related. If, in addressing the first, a commander tries to establish a climate in which subordinates are honest and don't engage in "show and tell," he will be accused of being disingenuous when he tries to put on a spectacle in confronting the second.

Like all leadership problems, there are no completely satisfactory or universal solutions. But if a commander spends much of his time with his subordinates and soldiers getting an accurate appraisal of the situation—enforcing, mentoring, and encouraging—the first problem will often take care of itself. There are several reasons this is so.

First, if the mortar platoon leader and sergeant, for instance, are accustomed to having the battalion commander show up in the middle of night live fire exercises, or when they discover him riding with a gun squad during a displacement, his appearance does not engender the fear of failure or uneasiness that might otherwise result. The leader who gets out and observes continually will not be unduly influenced by the inevitable off-days, and subordinates will instinctively know this.

Second, if leaders make it clear that the name of the game is to discuss (as professionals who belong to the same team) what is going right and what is going wrong, then subor-

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Office automation has led some commanders to feel they can effectively lead from a work station, engaging in what we once called "management by memorandum"

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dinates will not be inclined to conceal shortcomings—provided, of course, that the "basics" have been attended to (field discipline is being enforced, training has been thought out, etc.).

Returning to the mortar platoon example, if the battalion commander observes a live-fire exercise for several hours and then sits down with the platoon leader and platoon sergeant for 30 minutes and gets their assessment of what needs to be done, provides his own critique of strengths and weaknesses, and encourages them to discuss what resources they need to better accomplish the mission, he's helping foster a collective desire to win on the day of the game, not just to look good at practice. On the other hand, a once-a-year blitzkrieg visit to the mortar platoon in which all is declared to be in disarray after five minutes (with the mortar platoon leader given no opportunity to explain any of the

numerous problems or conflicting priorities that detracted from the observed outcomes) only contributes to poor morale, an unwillingness to take risks, and a desire to hide things.

Third, if a commander sets a tone of formally and informally sharing with his junior leaders what seems to be working and what doesn't (again, we're not talking about the basics), they will quickly pick up on the fact that he's committed to excellence in the long-run, not just to responding to what he considers his own boss's priority of the moment. In any event, a commander must serve as the focal point of the dissemination of lessons learned; it is unrealistic to assume that subordinates will have the time or the generosity to fully inform those on their left and right.

During these sessions, a leader must avoid sarcasm and disparaging humor when relating difficulties others have encountered. Such attitudes will easily be misconstrued as criticism, and the message "We don't fail in this unit" will quickly spread. Leaders must carefully distinguish between a failure to observe fundamentals of discipline and basic soldiering (operator maintenance not being performed in the field, for example) and a failure to attain a training standard (the reason the unit is in the field to begin with). The former should be dealt with swiftly and severely in private. The latter should generate enthusiastic and open discussion and an exchange of opinion that will lead to a determination to do it better the next time around. A leader who can promote such a spirit within his unit will create a team of professionals dedicated to excellence.

This still leaves us, however, with the problem of how to respond to visits from higher headquarters and outsiders. Of course, if a leader's own superiors have emphasized substance over form—frequently getting out, confronting reality, and exhorting and cajoling—the solution is "business as normal." But this is not always the case. Moreover, there is the occasional "Do not fail" VIP visit. We're not interested in having, say, the Russian Minister of Defense learn from the mortar platoon leader about the influence class I and other problems had on the abysmal performance just witnessed. The best recommendation that can be offered is for the responsible commander to decide early how much margin for error is acceptable and then to be absolutely aboveboard with his subordinates about what is expected and why.

It's truly regrettable if a leader's senior commander leaves his headquarters only once or twice a year to observe unit training. Nevertheless, if this is the reality, the leader should be wary of entrusting his unit's reputation to fate. Under such circumstances, prudence is entirely rational, instead of simply self-serving. He must think about the possible consequences for any subordinates observed having a bad day, or about the time that will be spent explaining why the entire unit was having a bad day. I don't mean to imply this phenomenon is commonplace in our Army. It isn't. But it can be expected to occur at least once in the course of anyone's career, and no commander should deny its existence.

It may be best to conclude this section by remarking that any commander who has held his post for more than six months and still finds that subordinates seem to freeze when he shows up at training is overdue for some introspection. Either he's not out enough and is still regarded as an oddity when he does appear, or he's perceived as being interested only in tearing down and not building up.

Command Philosophies. The expectation that every newly assigned commander will compose his "philosophy of command" is relatively new in the Army. We survived for

> *Any commander who has held his post for more than six months and still finds that subordinates seem to freeze when he shows up at training is overdue for some introspection*

many years without this requirement, but, whether or not a commander likes writing his philosophy is beside the point; it isn't optional. That being the case, we should at least make the most of it.

First, it should be brief. Anything much over one or two pages simply won't be read. I once glanced at one battalion commander's command philosophy that was 15 pages long. It was about as exciting as a book on the civil statutes of Jersey City and probably less widely read.

Second, a commander should identify and talk about the two, three, or possibly four things that he sees as the distinguishing features of his command. The predictable list of the thousand things a commander should do well reflects no imagination, or no vision, or both. Thinking about great college or professional coaches may be helpful. When we hear the name of a famous college basketball coach, we im-

mediately have an image of, say, commitment to academics, tenacious defense, and team ball. Certainly we don't normally recall such "stirring" platitudes as "Coach X's ethics are nonnegotiable" or "Coach X is a real equal-opportunity employer." In other words, keep the fluff out of a command philosophy.

Third, and related to the second point, a leader should make sure he knows his own priorities before committing himself in writing, lest his philosophy become an object of cynicism among his subordinates. If everything is to be a priority, he should say, "High performing units do everything well." (I'd disagree but would at least appreciate my boss's honesty.) If training excellence is to be a leader's lodestar, he should make this clear. But he should be truthful.

Finally, he must be realistic. We all want to accomplish great things, but the world is full of obstacles and constraints. A well-written command philosophy must reflect the art of the *possible*.

Both the plumbing and the poetry of leadership are essential to successful command. Yet it is the latter that makes the difference between a marginal unit and an outstanding one. Whether or not any of the random thoughts discussed here are regarded as useful is a matter of personal taste. But I hope officers, NCOs, and prospective leaders have at least been reminded that we need to give serious thought to the form our poetry takes.

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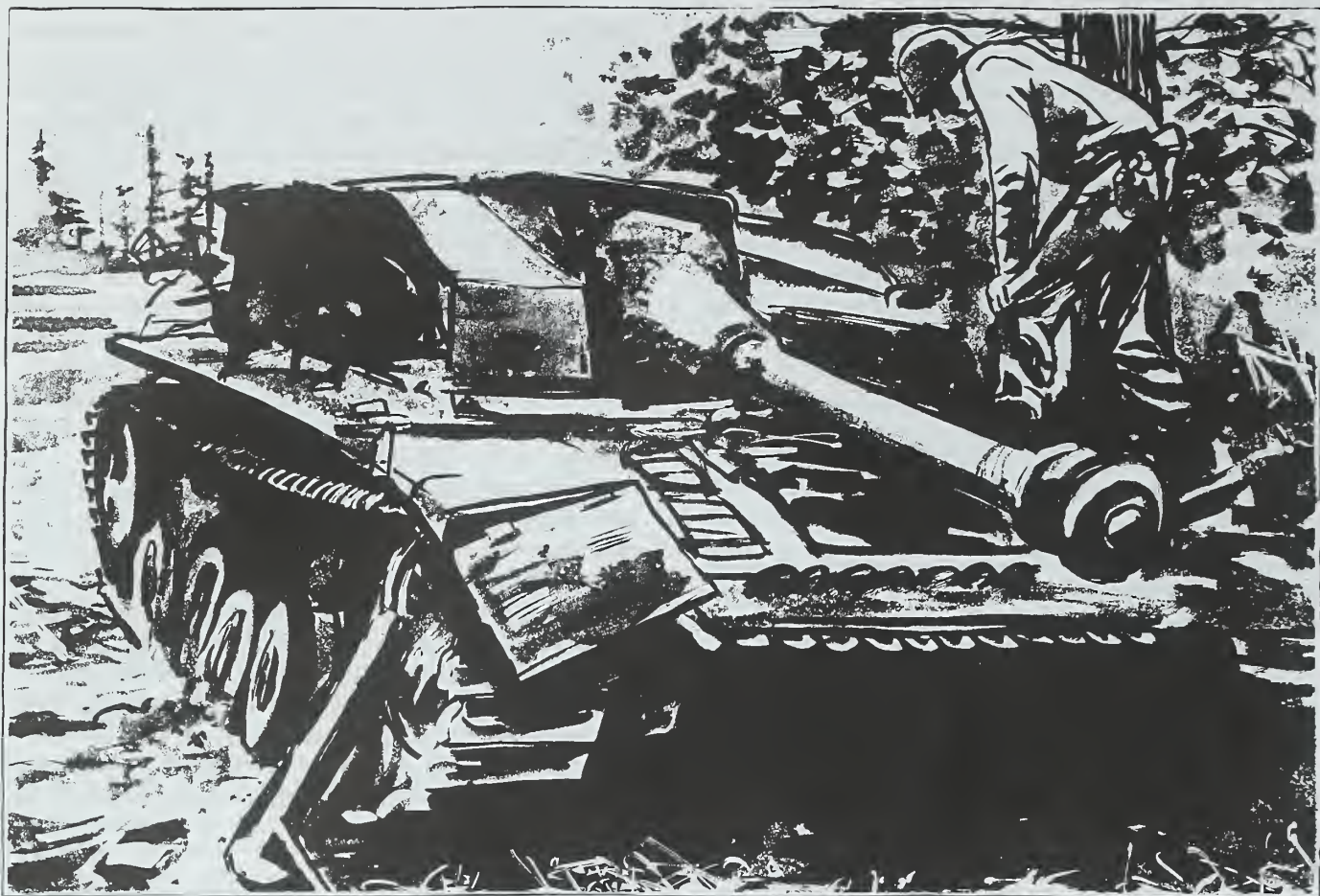
THE 894th TANK DESTROYER BATTALION

CAPTAIN F. PATRICK FILBERT

During World War II the 894th Tank Destroyer Battalion, Self-Propelled, fought with honor in North Africa and Italy. The battalion's history takes it through six major campaigns—Tunisia, Naples-Foggia, Anzio, Rome-Arno, North Apennines, and Po Valley—in which it fought in various roles and with its elements attached to several major units.

Initially designated the 4th Antitank (AT) Battalion—in honor of its former parent, the 4th Infantry Division—the battalion was activated at Fort Benning, Georgia, in January 1940, from elements of the 4th Division's 29th Infantry Regiment. Equipped with the M1 37mm Jeep-towed AT gun, the battalion began training its new antitank soldiers using a cadre system. Officers and noncommissioned officers from the former 29th Infantry Regiment, "school troops" at Fort Benning, trained the soldiers in this new form of warfare.

The training was on a rotational schedule, with the newly trained soldiers replacing their trainers, as the original cadre rotated to begin training other antitank units being formed. The new cadre members in turn continued training until they could be rotated to other newly formed AT units.

The unit was redesignated following an official War Department directive on 15 December 1941, activating "tank destroyer" battalions. In fact, it was redesignated four times in 1940—first as the 94th Antitank Battalion, then as the 94th Infantry Battalion (Antitank), followed by the 94th Infantry Antitank Battalion, and ending as the 894th TD Battalion (Heavy) before its inactivation as an antitank unit. It

was reactivated on 15 December 1941 with its final designation of the 894th TD Battalion (S-P).

The battalion participated in the fall 1941 Louisiana Maneuvers, still equipped with M1 AT guns. In preparation for facing German armor, its operations were concentrated on massing fire on the opposing forces. The battalion had been conducting massed fire training during the previous year at Fort Benning. Problems arose when the M1 AT gun did not prove to be as mobile as TD doctrine called for, and some questioned the penetrating ability of a 37mm round against German armor. As a result, in December 1941 the battalion was reequipped with the M3 75mm gun motor carriage (GMC), an M3 half-track vehicle mounting a low-velocity 75mm gun in the crew compartment, firing forward. Although the GMC offered more mobility and firepower

Table of Organization 18-25 8 June 1942

894 **TD**

HQ
5 x ARMD Car
8 x Motorcycle

11 x ARMD Car
9 x Motorcycle

A
B
C
12 x M6 GMC
15 x ARMD Car
24 x M3 GMC
18 x M5 GMC
6 x Anti-Aircraft Gun
6 x Motorcycle

1 x Ambulance
4 x Trucks

Officers and noncommissioned officers from the former 29th Infantry Regiment, "school troops" at Fort Benning, trained the soldiers in this new form of warfare.

than the M1, it was still not what the TD Corps had envisioned.

The mobility of the M3 GMCs was put to the test in the South Carolina Maneuvers of November-December 1941 and January 1942. Upon completion of these winter operations, the battalion was sent to Fort Bragg, North Carolina, for more training and preparation for movement to North Africa.

At Fort Bragg, the battalion received intensive training, replacements, and new equipment and prepared for the Atlantic crossing. The new equipment included the addition of the M4 version of the GMC. The M4 was the M37 "Fargo" 3/4-ton truck with a 37mm AT gun mounted in the bed; it was later redesignated the M6 GMC, but the M6 was used only in training exercises in the United States. The battalion's basic Table of Organization (TO) 18-25 gave the battalion a number of different GMCs. Although this set the TO for all units of this type, the 894th's TO would be modified several times during its lifetime. (The M5 GMC mentioned in the diagram was a three-inch gun in an open mount atop a low unarmored tracked chassis, protected only by a gun shield.)

In July 1942 the battalion moved to a staging area at Indiantown Gap, Pennsylvania, and a few days later to the Brooklyn Navy Yard (the New York port of embarkation) and sailed for England. Upon arrival in Liverpool, the unit occupied a portion of Camp Tidworth, on the Salisbury Plain, to conduct field exercises. Operations continued, with the battalion moving north to Swindon. And finally, the battalion deployed to North Africa in late December 1942.

After arriving in Oran, Algeria, on 16 January 1943, the battalion linked up with Combat Command B (CCB) of the 1st Armored Division, part of II Corps, in mid-February. Although most of the battalion was with the CCB, two of its
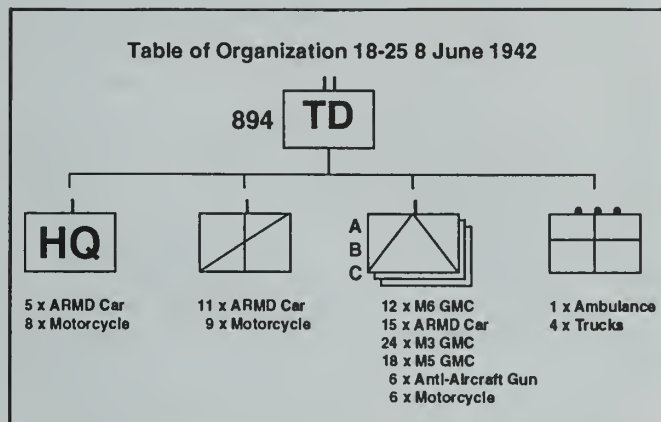
companies were assigned to the 9th Division. (The 894th had been scheduled to participate in Operation TORCH, the Allied landing in Oran, but had been quarantined in England because of a case of spinal meningitis in its ranks.)

During the battles in Kasserine Pass (19-20 February) against the 10th Panzer Division of Field Marshal Erwin Rommel's elite Africa Corps, the 894th helped stop the German thrust toward Tebessa, Algeria, and over the next two days again halted the enemy's westward attack at Djebel el Hamra and pushed back the light tanks and armored cars of the German 33d Reconnaissance Battalion. (The M3 GMCs became known as "purple heart boxes" because the thin metal of their sides was no match for machinegun bullets, much less for the German tank cannon rounds, and many casualties resulted from rounds tearing through and bouncing around inside.) Battles against the Africa Corps continued at El Guettar, Sbeitla, and Sedjenane before the II U.S. Corps and the 894th began to push west.

By mid-March 1943 the battalion was assigned as one of seven TD battalions under the 1st TD Group, which had just arrived in North Africa and was now part of the II Corps.

The mobility of the M3 gun motor carriages was put to the test in the South Carolina Maneuvers of November-December 1941 and January 1942.

Although the 1st TD Group was not a command and control element at the time, it did provide much-needed logistical and administrative support.

By the end of March the 894th began moving east across the rugged terrain of the North Tunisian desert, still part of the II Corps. As the Africa Corps continued to withdraw, the Allied forces continued to advance. The II Corps had the 9th Infantry Division moving along its northern flank with the Mediterranean Sea to the 9th Division's left flank and the 1st Armored Division on the corps' right flank (Map 1).

Leading with the 9th Division's reconnaissance troop, the 894th's reconnaissance company was the first U.S. unit to enter Bizerte, Tunisia, on 7 May 1943. Moving through the city with the 47th Infantry Regiment, and with the 9th

Reconnaissance Troop clearing mines ahead, the 894th's reconnaissance company took up positions along the ship channel looking southwest and waited for the rest of the II Corps to complete its move to the Tunisian coast.

Because the M3 still lacked the protection and mobility for rapid operations, the battalion was pulled back to South Oran in the summer of 1943 and given the new M10 GMC, which was based on the M4 Sherman tank. The M10 was armed with a three-inch main gun and a .50 caliber M2 heavy-barrel machinegun. With a maximum speed of 30 miles per hour and a range of 200 miles, this new TD gave the battalion the speed, mobility, and firepower it would soon need to meet Field Marshal Albert Kesselring's 14th Panzer Army in Italy.

Training with the new TDs continued in the desert until early September when the battalion was attached to the 34th Infantry Division, IV (U.S.) Corps, and began preparing for deployment to Italy.

Initially, the battalion participated in Operation AVALANCHE, the September 1943 Allied attack at Salerno. The battalion landed at Bagdolia, near Naples, and began moving slowly northward across the Volturno River and numerous ridges and streams. After moving along with the rest of IV Corps, the battalion hit the German Gustav Line at Cassino and all but halted. Like the rest of the Allied
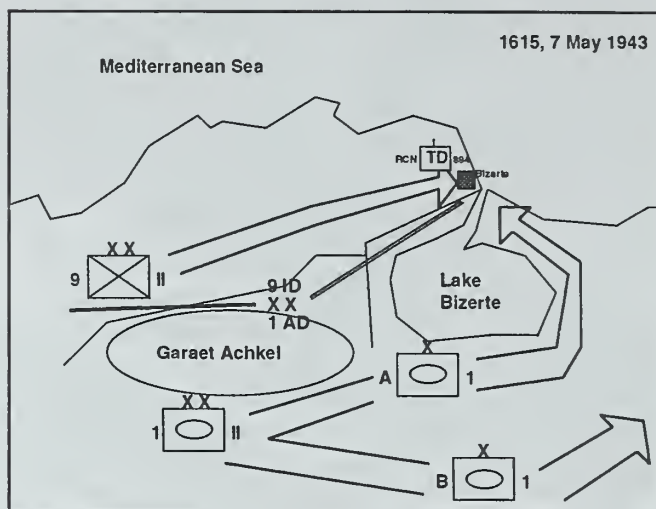

Map 1

Leading with the 9th Infantry Division's reconnaissance troop, the 894th's reconnaissance company was the first U.S. unit to enter Bizerte, Tunisia, on 7 May 1943.

Map 2

forces, it was unable to penetrate further.

With the 36th Infantry Division's attack across the Rapido River stalled (the division's regiments were nearly decimated by the defending Germans) and no way to link up with IV Corps units, the 894th was pulled back from Cassino and began preparations for the coming Anzio operation. *(See also "The Rapido River Crossing: A Battle Analysis," by Captain David M. Toczek, in INFANTRY, November-December 1993, pages 18-22.)*

While the line companies were waterproofing their vehicles, the reconnaissance company received the new M8 and M20 reconnaissance vehicles. Both were six-wheeled, lightly armored cars; the main difference between them was that instead of the 37mm gun turret, the M20 had a machinegun race ring installed over the open crew compartment and mounted an M2 machinegun.

With Company B detached to a regiment of the 34th Division, the 894th participated in the Anzio landing, the disastrous Operation SHINGLE. Landing in the early morning of 22 January 1944 with elements of IV Corps, the units met only light resistance from Kesselring's defending troops. By that night, however, the ease of the landing was overshadowed by the realization that the defending German soldiers occupied the high ground in well-prepared fighting
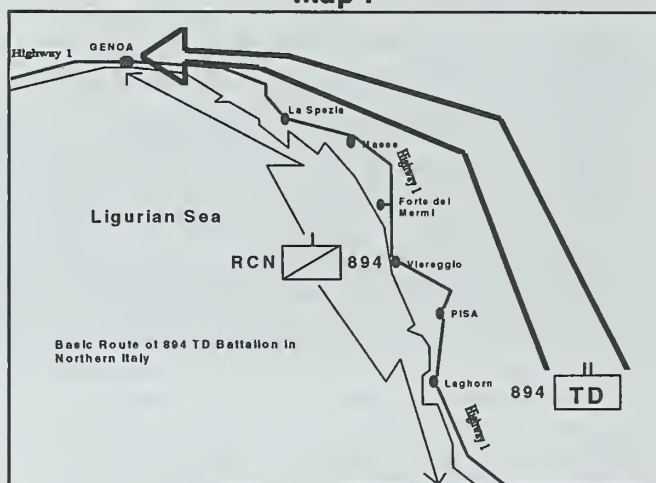
positions. Kesselring had 20,000 Panzer troops moving to Anzio, and by 25 January no less than eight divisions were moving from France, Germany, Northern Italy, and the Balkans to surround the beachhead.

Moving north, the Allied forces slowly made their way through the Padiglione Woods, part of the heavily forested area in the Alban Hills. By 28 January these forces had reached Carroceto. This small village, along with the village of Aprila (also known as "The Factory"), would change hands many times during the next several months. *(See also "Anzio Beachhead," by Captain Brian K. Coppersmith, INFANTRY, July-August 1994, pages 22-28.)*

The battle began at 2300, 28 January, and from the beginning it was extremely hard for the IV Corps to capture and maintain control of the Carroceto-Factory complex. By 0615 the next day, success was limited to a left flank attack by Number 3 Company, 1st Battalion, Irish Guards, 24th Guards Brigade, of the 1st (British) Infantry Division, to which a platoon from the 894th had been attached. In the course of the attack, the 894th succeeded in capturing 55 prisoners, removing German positions with three-inch main gun fire, and in some cases, driving the TDs right through the

A 37mm antitank field gun crew prepares for action. *(Photo courtesy The National Infantry Museum.)*

German fortifications and helping drive a wedge between the defending German 3d Panzergrenadier and 65th Infantry Divisions.

Meanwhile, Company B, still detached from the battalion, helped the Sherman tanks of the 46th (British) Royal Tank Regiment close the gap created by the 24th Brigade's attack. Company B was awarded a Distinguished Presidential unit streamer for this action—along with its fight against the enemy attack on the 5th (British) Grenadier Guards Brigade and the 3d Battalion, 504th (U.S.) Paratrooper Regiment the next day at the town of Carroceto. The British units nicknamed the company's soldiers "The Fighting Tank Busters."

By the time Allied forces had broken out of the Anzio beachhead and made their way north, the 894th had suffered 20 percent casualties, either from the intense German artillery bombardment of the beachhead or from moving about the battlefield.

Moving up the Italian coast, the 894th remained with the 34th Infantry Division through the Rome-Arno campaign from late January to early September 1944. During that time, the battalion's missions ranged from acting as tank destroyers in platoon and company sized units to operating in the indirect artillery fire support role.

Detached from the 34th Division and attached to the 92d Infantry Division (Forward) for the duration of the North Apennines campaign (September 1944 to April 1945), the 894th made its way to the town of Viareggio, once a resort, where it was attached to the 2d Armored Group, subordinate to Task Force 92 (Map 2).

On 6 October 1944, following a two-hour artillery preparation, the task force began its attack against Monte Cauala, the first phase of the attack toward the town of Massa and, ultimately, the port of Genoa. Defending this rugged mountain terrain was the German 42d Jaeger Divi-

sion and, by the end of October, the 232d Grenadier Regiment as well. Fighting continued throughout the month and by 23 October the offensive was halted as few Allied gains had been made. It was not until the end of November, with the attachment of the 366th Infantry Regiment to the task force, that the 92d Division made gains toward Genoa, with the city of Forte dei Marmi being taken. One company of the 894th was attached to the 366th Infantry Regiment for this mission.

Throughout the North Apennines campaign and into the Po Valley campaign, the battalion's reconnaissance company had the task of maintaining security along Task Force 92's

After moving along with the rest of IV Corps, the battalion hit the German Gustav Line at Cassino and all but halted.

coastal flank, which included both Highway 1 and the area west to the Ligurian Sea. Once the 894th (minus) reached Forte dei Marmi, it was pulled back from the front for a much-needed rest, although the company attached to the 366th Infantry continued operations.

By April 1945 the battalion (minus) was still with the 92d Division at the start of the Po Valley campaign. Company A was attached to a unit of tanks and infantry known as Task Force Curtis. Under the operational control of the 473d Infantry Regiment, the task force had the mission of clearing the sector west of Massa.

As the 92d Division moved North toward the Frigido River, the defending enemy thwarted attempts to cross on 10 April until the commander of the 2d Battalion, 473d Infantry, brought up a platoon of TDs from the 894th and had

them fire across the river into numerous enemy-held houses all afternoon. By evening, the 2d Battalion had crossed the river, and by the next day, Massa was controlled by the 92d Division's 473d and 442d Infantry Regiments. By 19 April the port of La Spezia was under 92d Division control, and it was the TDs of the 894th that had led the 473d RCT into the town.

By 23 April the port was completely under Allied control. While the platoon of TDs was assisting the 2d Battalion, 473d Infantry in the assault on La Spezia, the rest of the 894th continued north toward a crossing point at the Po River and on to Milan. Two days earlier, working with the Brazilian Expeditionary Force, the 894th (minus) had helped liberate the city of Bologna (Map 3).

By the end of April, General Mark W. Clark, commander of the 15th Army Group, had placed the 92d Division under his operational control and ordered it to continue its attack northward. On 24 April, 1st Platoon, Company A, 894th TD Battalion, was attached to the 370th RCT and ordered to attack to the limit of Cisa Pass-Cerreta Pass. Once established, the attack to the port of Genoa began in earnest.

Enemy units facing the advancing elements of the 92d Division and the 894th TD included remnants of the 148th Grenadier Division, the 70th Panzergrenadier Division, the 4th High Mountain Battalion, Italia Division, and the 135th Fortress Brigade. The 92d Division's objective of Genoa lay only 110 miles away and, through determined fighting, that objective was taken in only 60 hours.

By May 1945, with the war in Italy nearly over, the battalion received orders for its attachment to VI (U.S.) Corps and its continued movement. That movement was now to the

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By 19 April the port of La Spezia was under 92d Division control, and it was the TDs of the 894th that had led the 473d RCT into the town.

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northeast, first to the city of Udine and then to Trieste to establish road blocks to keep Yugoslav partisans and elements of the Yugoslav and Russian Armies from moving into the city. Additionally, TDs from the 894th conducted security operations near the border along the established demarcation line at Gorizia, northeast of Trieste, and worked with the Office of Strategic Services (OSS) escorting captured soldiers from the German 5th Army past Yugoslav partisan units.

With the end of the war in Europe, the 894th was replaced by the 88th (U.S.) Infantry Division along the border. The battalion was disbanded at Trieste, and its soldiers and equipment moved south to Florence to prepare for movement back to the United States.

On 8 September 1945, the 894th TD Battalion was officially inactivated at Florence. Like the other TD battalions, the 894th was no longer needed; the Army's focus was now on bigger tanks and newer doctrine. But this was not the end of the battalion.
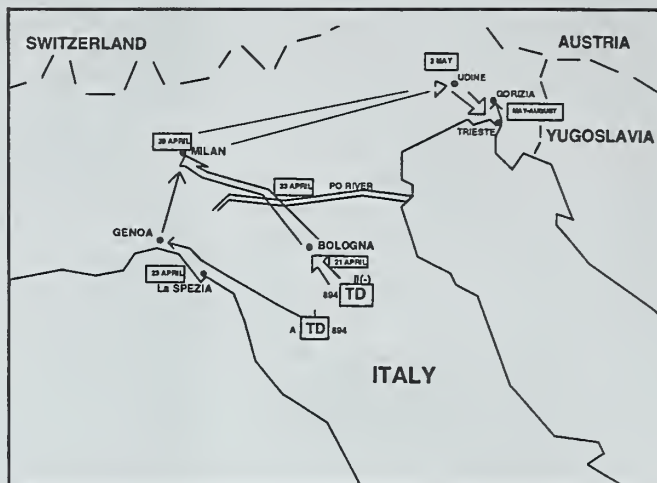
Map 3

In July 1953 the battalion was redesignated the 894th Tank Battalion (120mm Gun) and received the tanks and equipment of the 131st Tank Battalion, Alabama National Guard. After 18 months, the battalion was reactivated, in December 1954, and assigned to Fort Knox, Kentucky, to serve as Armor School troops. While at Fort Knox, the battalion had a few developmental 63-ton T43/M103 120mm tanks, until 1956 when it received the M48 90mm tank and was redesignated the 894th Tank Battalion (90mm).

As school troops, the battalion's soldiers were responsible for providing equipment and personnel for all Armor School training. This included field exercises, tank gunnery ranges, and all instruction conducted at field locations. Soldiers and officers of the battalion continued to work with the student officers and soldiers attending the Armor School until the battalion's final deactivation in June 1958.

During its time in service, the 894th Tank Destroyer Battalion received numerous battle honors and individual awards. During 543 continuous days of fighting, it is credited with destroying 46 German tanks and self-propelled guns, 38 wheeled vehicles, 27 field artillery pieces, 101 machinegun nests, 20 observation posts, 17 ammunition dumps, 21 pillboxes, and one ME-109 Stuka dive bomber, along with other smaller targets. Its casualties totaled 52 killed in action, 373 wounded, and 31 missing in action.

Despite the specific nature of its mission, as implied by its name, the 894th Tank Destroyer Battalion rarely fought as a pure tank destroyer battalion. Rather, its elements were attached to many different units within various divisions, where its soldiers carried out a broad range of missions in the types of combined arms operations that are the cornerstone of today's doctrine.

Captain F. Patrick Filbert, a Military Intelligence officer, is the 101st Military Intelligence Battalion's electronic warfare liaison officer to the 1st Brigade, 1st Infantry Division, and will soon take command of a company in the battalion. He previously served as a tank platoon leader, an assistant S-3, and a battalion liaison officer in the division's armor battalion and served as an assistant brigade S-2 during Operations DESERT SHIELD and DESERT STORM. He is a 1986 ROTC graduate of the University of Hawaii-Manoa.

TRAINING NOTES

Preparation for the JRTC
The Rifle Platoon Leader

LIEUTENANT JAMES SISEMORE

Having completed one rotation as a platoon leader before my battalion's second rotation to the Joint Readiness Training Center (JRTC), I could think of several areas that needed improvement if the platoon was to succeed. I would like to share some areas in which preparations helped me during that second rotation. If you are rifle platoon leader, they should also help you prepare your platoon to "go to war" at the JRTC:

Take the opportunity seriously. Many units scheduled for the JRTC fail to understand the benefits they can expect to receive from the training. It offers leaders and troops alike the opportunity to experience the closest thing to warfare the U.S. Army can offer without risking the lives of its soldiers.

To get the full benefit, however, soldiers need to be informed in advance of what they can expect and what will be expected of them. The opposing force (OPFOR) they will encounter will probably be the best-trained and best-equipped enemy they will ever come up against. The fact that the OPFOR is thoroughly familiar with the ground adds to the challenge.

As a leader at platoon level, never refer to the rotation as a "training event." Instead, present it as an opportunity for your soldiers to show the OPFOR what they can do. Take every chance you may get to instruct your troops on the OPFOR's capabilities and the way they operate. If you don't know these things, ask your battalion S-2 to brief you; the more you and your soldiers know about the OPFOR, the better your platoon will perform against it.

Don't overlook MILES gunnery. One area that is often overlooked, but one of the most fundamentally important, is MILES (multiple integrated laser engagement system) gunnery. Just as each unit goes to the range to zero and qualify on its weapons in preparation for war, so must it implement a plan to ensure that its soldiers know how to zero their weapons properly with MILES before they deploy to the JRTC.

After entering the rotation, your soldiers should re-zero their weapons at every opportunity. Soldiers must understand that un-zeroed MILES is useless, and that the zero moves every time the transmitter makes contact with another object (including a tree or the ground). As a leader, you cannot allow your soldiers to simply go through the motions of re-zeroing their individual weapons.

Members of the OPFOR at the JRTC zero their MILES gear every day of a rotation. It is not unheard of for an OPFOR soldier to spend as much as two hours confirming his zero. This may sound extreme, but if your soldiers do not do it they will be wasting their time and training trying to fire upon the OPFOR soldiers who do. While it may not be possible for them to re-zero every day, they should try to do it at every change of mission (at least three times per rotation). Through your observer-controller, you can request that a MILES contact team come to your area during the three company after-action reviews (AARs) so your soldiers can confirm the zeros on their weapons.

Tricks that help maintain a good zero include using a piece of cardboard under the MILES laser to steady the transmitter and then using adhesive or engineer tape to further secure the laser. The maintenance of MILES equipment must be incorporated into daily weapon maintenance. Dirt on the lens of a laser transmitter is as bad as un-zeroed MILES.

Not all soldiers in a rifle platoon understand how to fire MILES-equipped antiarmor weapons effectively. The fourth or fifth day in the training area is not the time to find out that several of your soldiers can't fire the weapon effectively. Given the number of losses an infantry platoon can expect during a rotation, all the designated Dragon gunners may be missing for the antiarmor defense mission.

During the final weeks available before a rotation, time should be allotted for each soldier in your platoon to fire the MILES Dragon and AT-4 weapons. The Dragon can be fired at a company vehicle with a MILES integrated target system kit attached. The AT-4 can also be fired at a vehicle for practice and can even be fired at a soldier wearing a MILES harness and halo.

Practice standard battle drills. Although soldiers and squad leaders who are told to practice them may treat them lightly, battle drills will win or lose squad and platoon contacts in war as well as at the JRTC.

It is during these contacts that the effects of proper or improper individual movement techniques will become apparent. Given the opportunity, platoon leaders and company commanders should set up squad contact lanes that allow a squad leader to fire and maneuver with his squad against an opponent with zeroed MILES equipment. Not only will this give the leader a chance to observe the readiness of his soldiers, it will also give the soldiers an opportunity to see how effective the zeroed MILES can be.

Soldiers cannot simply be "talked through" battle drills and be proficient. Team and squad leaders must practice moving their forces on the ground against an unpredictable enemy element. Only with practice and retraining will soldiers be prepared to react to contact successfully.

Use your indirect fires. A rule I learned during my first JRTC rotation was never to commit my platoon if indirect fires could be used first. Your forward observer is a key asset during every mission. In the defense, he can call in fires upon advancing troops and armor. In the search and attack, he can lay blocking fires on a retreating enemy.

Your FO can also be relied upon to act as your second navigator. It is his mission, as well as yours, to know where the platoon is at all times. If he does not use a map during every movement, both he and you are wrong.

See that every soldier understands the commander's intent. Too often at the JRTC, leaders are wounded or killed, leaving the platoon with junior squad leaders. So long as each man knows what he and the platoon must do to accomplish the mission, the leaders can be sure of a dedicated and focused attack.

One way to see that this happens is to have a warning order or operations order format laminated for each squad leader. The essential items for a mission can be outlined and filled in during a fragmentary order. Situation, mission, and commander's intent, along with the execution paragraph, need to be briefed to every soldier. Mission and intent are often forgotten in the rush to brief the execution phase of an operations order.

Use mission checklists. Individually, there are several areas the leaders can improve upon to see that missions are accomplished successfully. Mission checklists are among the easiest and most valuable of these, but the least used; they can be completed while in garrison.

While certain tasks may be considered standing operating procedure (SOP), nothing can replace a checklist in preparing for a mission. The conduct of a defense is an excellent example of the need for a checklist. When preparing to meet an enemy force that can be expected to arrive at any time, leaders cannot be expected to remember every necessary detail of a defensive preparation. A written format that lays out company and platoon SOPs is vital to the proper and timely preparation of a defense.

Checklists for priorities of work, mission preparation, the defense, and even a deliberate attack, will fit on two or three 5x8 index cards that can be carried along with your map in a cargo pocket. These will become a definite advantage if you or your platoon sergeant becomes a casualty. Your map as well as your checklist can pass to the senior squad leader and help him continue the mission.

Enforce standards on every field problem. Also important in preparing for the JRTC are field discipline and understanding the JRTC exercise rules of engagement (ROEs). After a few days, it becomes essential that each leader know and maintain the standards. Tired soldiers (and leaders) will always take the easy way out. If your battalion does not use and enforce the exercise ROE standards as an outline for the field training exercises leading to a rotation, you might suggest to your company commander that this be done.

Platoon classes on the ROEs should also be incorporated into your classes on the OPFOR. While soldiers do not need to know and understand the ROEs word for word, they should know the basics. For example, they should know that a soldier who leaves his helmet off for comfort will be scored as a dead soldier by an observer-controller. If leaders are willing to enforce standards during the train-up exercises at home station, the ROEs will be much easier to enforce at the JRTC.

The JRTC cannot be approached as just another field training exercise. It has to be seen as an opportunity to display your platoon's tactical and technical ability.

The suggestions offered here involve only a few of the hundreds of preparations a leader has to go through to get ready for a rotation. For a rifle platoon leader, however, it is attention to these areas that will make a training rotation much easier and more successful.

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The Alternate Scout Platoon

LIEUTENANT WILLIAM M. CONNOR

The scout platoon is one of the most important elements of a battalion task force. The commander must have complete confidence in the platoons' ability to gather intelligence and report it in a timely manner. It is this information, to a large degree, that determines the success or failure of the entire task force.

At the same time, however, the scout platoon is the battalion's most overworked and endangered element. After three or four days of continuous operations, its efficiency can be significantly reduced by casualties, stress, and lack of sleep. The designation of an alternate scout platoon could relieve the scouts and give them a chance to rest and reconstitute.

When I was an antiarmor platoon leader during a unit rotation at the National Training Center (NTC), I was also designated the alternate scout platoon leader and was called upon frequently to relieve the scout platoon. Since I had been told before the rotation that my platoon would be doing this job, I developed a training plan that would get the platoon ready for both of its missions.

From my experience in training for and operating as the alternate scout platoon, I offer some key points that are critical to the platoon's proper training ·and use:

Every battalion should have a platoon permanently designated the alternate scout platoon. Since this platoon will have to relieve the scout platoon when the task force is involved in continuous operations, it must be trained on scout tasks, and the platoon leader must be proficient in scout platoon leader tasks. In addition, the alternate scout platoon must be proficient at relieving the scouts during a tactical operation, and the scout platoon must be proficient at being tactically relieved.

Once designated, the alternate scout platoon can follow the principles expressed in Field Manual (FM) 25-101, *Battle Focused Training*. In executing the training cycle, the platoon must understand the mission and METL (mission essential task list) of its higher

The alternate scout platoon's collective tasks must be approved by both the company and the battalion commander to ensure that they fit both types of mission.

unit before deciding on its own collective tasks. To start developing its collective tasks and a training plan, the alternate scout platoon must know that its direct higher units are both the company and the task force.

The platoon's collective tasks must be approved by both the company and the battalion commander to ensure that they support both types of mission. The platoon's collective tasks must be evaluated externally so the platoon leader can develop a training plan. The company commander should evaluate the tasks to make sure the platoon is trained to carry out the missions he

gives it, and the battalion commander should review the tasks to see that the platoon can perform the scout missions. The alternate platoon must be given enough time to develop a training plan and become proficient in all of its collective tasks.

The alternate scout platoon should always be aware of the task force situation during tactical operations. In the field, the alternate scout platoon leader should accompany his commander to all task force meetings. He must know as much as the scout platoon leader knows and then disseminate current information to his platoon. In a tactical situation, it may become necessary for him to assume the scout platoon mission without warning; he may have just enough time to receive a location and mission.

The alternate scout platoon should be considered in the planning process whenever the task force conducts tactical operations. The task force commander must decide at which point he will replace the scout platoon with the alternate, based upon the missions. A scout platoon can quickly become incapable of accomplishing its mission because vehicles have been lost (either from mechanical failure or from destruction on the battlefield). This loss must be factored in when planning scout missions and using the alternate platoon.

If the alternate scouts are to be used in an operation, it is important to have a support system in place before committing the platoon. Since support for the scout platoon itself is normally

taken care of, the support slice must be increased to support the alternate scouts.

Whenever the scout platoon is relieved of a mission, one of its noncommissioned officers should be designated to support the alternate platoon. This NCO should be someone other than the platoon sergeant and should rotate each time the scouts are relieved. He should use a scout vehicle to run the support. The scout platoon would already be at the unit maintenance collection point (UMCP) and would be able to get by working through the UMCP.

All classes of support for both platoons would come through the scout platoon first, then to the alternate platoon. The scouts could switch off vehicles between support missions, if all of their vehicles are in need of maintenance. One of the advantages, aside from taking care of the problem of support, would be to give the two platoons a link; the NCO running support could help keep the scout platoon leader in touch with what was going on with the alternate scouts.

Using the antiarmor company as the alternate scout platoon worked well at the NTC for various reasons, but the antiarmor company is now being phased out of the tables of organization and equipment for mechanized battalions. This leaves a Bradley platoon as the only real choice.

There are many things about a Bradley platoon to consider when deploying it as the alternate scout platoon:

The Bradley platoon has four vehicles (BFVs) while the scouts have six (HMMWVs). Although BFVs offer more protection and firepower than the HMMWVs, being larger and louder, they are also much more likely to be detected by the enemy.

With four vehicles instead of six, the Bradley platoon cannot observe as large an area from its vehicles, but it has great

A scout platoon can become incapable of accomplishing its mission in a short time because vehicles have been lost (either from mechanical failure or from destruction on the battlefield).

dismounted capability. If augmented with extra radios, the Bradley platoon can operate in four dismounted teams of four or five men each to conduct a thorough dismounted reconnaissance.

The BFV's integrated sight unit and TOW system give the platoon an advantage over the HMMWV during screening and counterreconnaissance missions. A BFV can quickly acquire and engage targets at long range.

In designating an alternate scout platoon, a battalion commander should decide first which platoon to choose

and then which lieutenant should lead it. This will allow him to choose from a company that can afford to give up a platoon during tactical operations; an example is a company that is normally left in reserve. Ideally, the leader he chooses will also be one he plans to make the next scout platoon leader. This lieutenant should then be sent to the scout platoon leader school before he leads the alternate scout platoon. Each subsequent leader of the platoon should also come from a rifle platoon leader job and be on his way to becoming the scout platoon leader.

In summary, the alternate scout platoon should be treated as an important element in the battalion task force. It should be led by a competent and experienced platoon leader who is trained to conduct scout missions; it should be permanently designated; and it should be kept abreast of the situation during tactical operations so it is ready to assume the job of scout platoon at any time.

Most important, the task force commander should understand the importance of the alternate scout platoon and make plans for its use.

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Using Attack Helicopters

LIEUTENANT SHAUN GREENE

Although the primary mission of an attack helicopter is to destroy armored and mechanized threat targets, this mission changes when the helicopter is employed in a low-intensity conflict (LIC). In this environment, it may assume a role similar to close air support (CAS) for the units on the ground. With this new role, it is important for infantry units to effectively communicate with and direct the attack aircraft.

Small infantry units can already call in fire from attack helicopters; this was very common in many combat actions in Vietnam. But the art of providing at-

tack helicopter fire support to light infantry has been lost, for the most part, from disuse. The reason is that although attack helicopters can be used throughout the spectrum of conflict from low to high intensity, the focus has been on mid to high intensity where they can mass fires against armor and mechanized forces.

Some Army field manuals touch on the possibility of using attack helicopters for close support, but none of them provides instruction on how to do this. It will be interesting to see how the lessons of the Somali peacekeeping mission will influence the use of attack helicopters in future support to light infantry. Unfortunately, those lessons may also soon be forgotten if they are not studied and seriously considered.
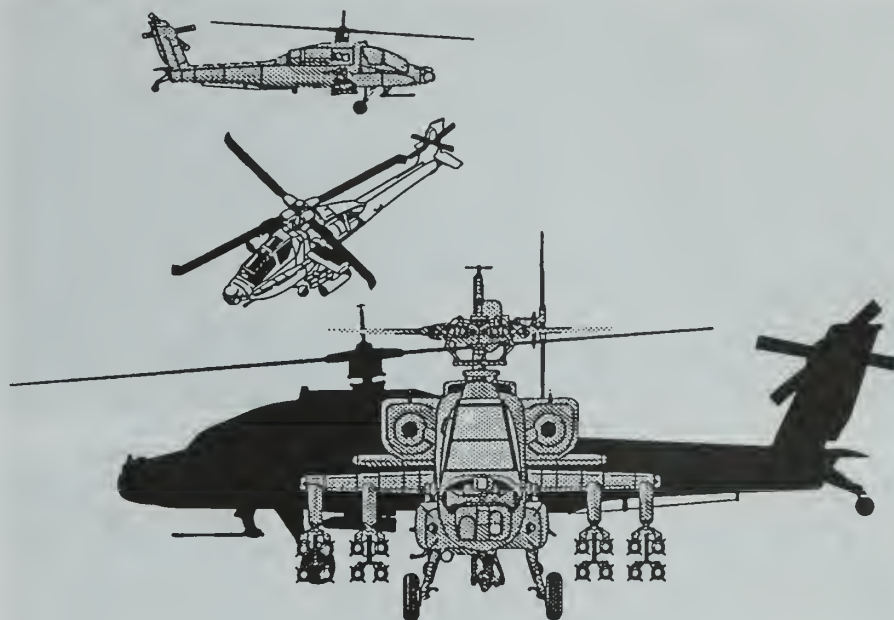
Recently, the 1st Battalion, 25th Aviation, 25th Infantry Division, has made great strides in re-examining this art and maintaining it. Two of the battalion's primary missions in a LIC environment are to provide security for air assaults and to provide fire support for the infantry. Although artillery usually provides the light infantry with fire support, artillery is not always able to help. If a unit is out of artillery range or in the confines of built-up areas, fire support from attack helicopters is crucial.

On a recent gunnery exercise, the battalion used infantrymen to call in and adjust fire on enemy positions. Both the aviators and the infantrymen learned a lot of good lessons.

Directing attack helicopters seems simple on the surface, as Clausewitz said, "the simplest thing [in war] is difficult," and light infantry must have an easy-to-remember method of calling and controlling helicopter fire. Unlike the Air Force, with a nine-line CAS request format, there is no formal or set way to do this doctrinally. To be successful, however, the following are basic tasks that must be completed:
· • Gaining communication between air and ground.
  • Identifying the enemy position.
  • Identifying the friendly position.
  • Adjusting fire.
There are many ways the attack helicopter can be tasked to support an infantry unit, whether it is requested on the spot, through battalion and brigade, or assigned a direct support role during a mission. No matter how the tasking comes down, communication between the helicopter and the ground unit is paramount. The division communications SOP must be followed precisely. If all units are supposed to be able to change frequencies rapidly in the secure mode, then all units need to do this in accordance with the signal operating instructions to maintain the interface between the air and ground elements.

The attack helicopters in the 1st Battalion, 25th Aviation, fill their SINCGARS (single-channel ground and airborne radio subsystem) with the infantry brigade operating frequencies so that if they get a call to support, all they need is the frequency and call sign of the unit needing assistance. The attack helicopter can then talk directly to the unit and provide that fire support.

Once communication has been established, the next two tasks for the infantryman are identifying the enemy and friendly positions. Although the order for accomplishing these tasks is not set, pilots generally like a quick warning order on the enemy first so they will know what they're dealing with.

There are many ways to identify the enemy, and these methods change for the aviators with conditions of visibility. During the day, possible methods are a grid coordinate, terrain association, distance and direction from the friendly position if the aviator already knows it, or marking the enemy position with friendly tracer fire. During hours of limited visibility, the day methods can also work, but with night vision goggles (NVGs) and lasers, additional techniques can be used.

The Army has made great strides in the area of night operations, and a big part of this has been the wide use of NVGs and lasers. These pieces of technology make locating an enemy position at night easy for both the aviator and the infantryman. Simply, the laser is used to designate the target, and the NVGs are used to see the designation. Either the aviator or the infantryman can designate. The new AIM-1 laser, now in the inventory for attack helicopters, gives the attack helicopter a first-round hit night fire capability for the M197 20mm gun. All the infantryman has to do is look at the laser through NVGs and tell the aviator whether or not the laser is on the target.

If the roles are reversed, infantry units can use the new AN/PAQ-4 laser for small arms to "paint" a line between the friendly enemy positions. A soldier "paints" the line by moving the beam back and forth from the friendly position to the enemy position along the

ground. So long as the unit is not in a thickly vegetated area, aviators can effectively find the enemy location. The AN/PAQ-4 is able to paint the line because it is not powerful or precise enough to lase right on the target, as the AIM-1 can do. (A hand-held version of the AIM-1 is available in the supply system; units can purchase it for about $900 and be able to lase right on the target.)

Identifying friendly positions is important in preventing fratricide. Some techniques for locating by day are grid coordinate, terrain association, or VX-17 panel or smoke. Some techniques for night are grid coordinate, terrain association, and infrared or colored chemlites (other than green or blue, since aviators have difficulty seeing these colors with their NVGs). The pilot must give a positive identification of the friendly position before firing. Many of the problems of fratricide dur-

ing Operation DESERT STORM were a result of failure to positively identify friendly forces.

Once the target is engaged, fire adjustments will help ensure that the rounds are hitting the enemy position. If there is a misunderstanding of the target, a simple adjustment can remedy the situation. Adjustments with attack helicopters are best done using cardinal directions; for instance, if the rounds are striking 100 meters north of the enemy, the correction should be "shift south 100 meters."

The use of attack helicopters is really quite simple for infantrymen, so long as they remember these four tasks. These tasks are deliberately general so that calling for fire is simple yet flexible.

Finally, it is important that infantry units train regularly with aviation units. Infantry units tend to focus inward on making themselves better in their basic infantry tasks, which is good. But in-

fantry units can also make themselves better by incorporating the tremendous firepower assets of attack aviation into their training. Infantry units also must shift their focus from assault aviation to attack aviation.

For light infantry units with limited organic firepower, attack aviation units can be an important force multiplier. In the post-Cold War world, low intensity conflicts are commonplace, and the Army must be prepared to face the challenge they present. One of the best ways to face these challenges is solid coordination between the light infantry and attack aviation.

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Enhanced
Home-Station Gunnery

MAJOR GARY W. ACE
SERGEANT FIRST CLASS WILLIAM D. LaCOMBE

Using the Bradley fighting vehicle's (BFV's) integrated sight unit in the thermal mode, a commander and gunner can detect and engage targets during any condition of visibility. To make the most of this advantage, however, thermal target engagements must be emphasized during training.

Home-station gunnery (HSG) for units equipped with the BFV is a conti-

nuing, progressive training program that intensifies two or three months before a major gunnery exercise. HSG focuses on orienting the crewmen to the technical aspects of the vehicle's turret system, exposing them to the most fundamental gunnery techniques, building them into an efficient team before the introduction of full-caliber ammunition, and integrating the platoon into

dry-fire proficiency courses. Training BFV gunners to engage targets in the thermal mode at home station uses training time more efficiently and produces better training.

We propose a low-cost, high-payoff gunnery technique that helps gunners build confidence in using the thermal sight. In this technique, no-power thermal tape is applied to scaled targets to

create a realistic thermal vehicle image. With scaled thermal targets, the crew is trained to use the night sight in the early stages of preliminary gunnery. The purpose of this gunnery is to reinforce the skills soldiers need to lay on targets, determine their range, and track them during limited visibility. This training can be done either in garrison or at a local training area.

We obtained a sheet of the no-power thermal tape from our range control office (a 24-inch square is enough to train an entire company). The tape is easy to work with. It sticks securely to the vehicle silhouette and offers a realistic uniform target reflecting thermal variation that provides the vehicle image.

A scaled target range can be established to improve gunnery skills during HSG training. The use of the no-power thermal tape improves Bradley Table I (engage stationary targets and prepare and fire from a range card) and Table II (employ direct fire against stationary and moving targets). Although Field Manual 23-1, *Bradley Fighting Vehicle Gunnery,* calls for these tables to be negotiated in the daylight sight mode, it is now possible to improve the HSG training by repeating the tables in the night sight (thermal) mode. In addition to providing an early introduction to thermal engagements, this opportunity also reinforces training on fire commands, engagement techniques, confidence with switches, and gun manipulation.

Leaders must always consider the constraints on time and other resources when planning training. The Bradley HSG technique should therefore make the most of innovative training opportunities whenever feasible. With the use of the no-power thermal tape, it is now possible to achieve a thermal image with scaled targets. This unique material provides an excellent opportunity for innovative approaches to training at home ·station.

The BFV's thermal target acquisition systems have reduced the enemy's effective use of darkness, a lesson Iraqi tank and fighting vehicle crews learned at great cost during the Gulf War. This nightfighting capability offers a
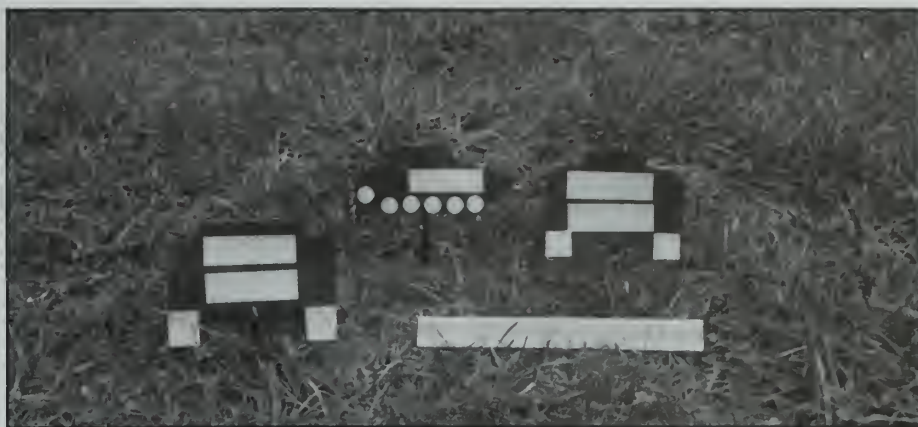
Sealed silhouette targets with no-power thermal tape attached (12-inch ruler insert).

Targets as seen through the gunner's sight in the "white hot" mode at 25 meters...

...and in the "black hot" mode at 25 meters.

tremendous advantage, but it is one that we must master if we are to fight effectively at night.

Training BFV gunners to use the night sight predominantly is a way to make the most of the thermal advantage. HSG programs that include thermal target engagements are now a solution for training BFV gunners to a higher degree of proficiency when using the night sight. The no-power thermal target material now allows us to train more often the way we will fight—in the thermal mode.

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The PRO-Train Concept
Better Training for the Total Army

CAPTAIN RON KINSER

The mobilization mission of U.S. Army Reserve (USAR) training divisions is to train new soldiers for the infantry. Concerns about the readiness and capabilities of these divisions have led to an evolution in the strategy Active Army units use in preparing USAR cadre for this mission. The result of this improvement is the Provisional Roundout Training (PRO-Train) concept, which gives a USAR cadre a better training experience and results in a net gain in assets for the total Army.

USAR training divisions generally cannot execute their wartime training mission during drill weekends, because they are often too far from initial entry training (IET) sites. In the past, USAR training units alternated the training; one year's annual training (AT) period would be devoted to local unit training designed to address assessed unit weaknesses and the next year's AT would be at an IET site where the Reserve Component (RC) cadre displaced the Active Component (AC) cadre.

This displacement allowed the unit to execute IET in accordance with its mission essential task list (METL). If a unit could not conduct a full displacement, the available cadre might conduct satellite training, during which the RC cadre members would learn by observing their AC counterparts, who retained responsibility for the training.

These displacements were of three basic types:

• Horizontal unit displacements (HUDs), consisting of sequential rotations of an RC unit upon a like-sized active unit throughout all or part of an IET cycle.

• Vertical unit displacements (VUDs), consisting of the simultaneous displacement of brigade headquarters and all of its subordinate units upon a like-sized unit.

• Mobilization Army Training Center (MATC) missions, consisting of the establishment or expansion of a training base at an RC unit's mobilization station by rotating units from an RC brigade.

Although this concept gave the USAR units some training opportunities, both the displacements and the

Leaders realized that the training opportunities given to USAR units during their displacements had to be drastically improved at a time when fiscal constraints limited the budgets of both components.

counterpart training suffered from several shortcomings that made the execution of the USAR METL upon mobilization an unrealistic expectation.

Generally, the USAR training divisions "shopped around" to select the opportunities at different posts that best fit their capabilities, schedules, or other criteria. As a result, the units conducted various types of displacement missions at various U.S. Army posts.

The tendency to conduct AT at different posts compounded problems with planning, coordination, and execution. Since the USAR units had no habitual relationships with the Active Army units, they had to plan and conduct a different type of displacement for each annual training period with a different unit at a different post, using different local policies and procedures.

This "shopping around" also tended to encourage the specialization of a unit cadre: Once a unit had conducted a displacement during a certain portion of a basic combat training (BCT) or one-station unit training (OSUT) cycle, the unit sought out similar missions the next year in the hope of performing well. Both cadres avoided displacements during the more challenging portions of an OSUT cycle, because the RC cadre wanted to perform well, and the Active Army leaders wanted the AC cadre to conduct the more difficult portions of IET. Thus, displacements during basic rifle marksmanship were common, while displacements during field training exercises were rare. This tendency produced USAR units that specialized in one part of the program of instruction while learning little about the rest.

To further complicate this problem, OSUT is conducted at only one IET site—Fort Benning, Georgia. The training divisions that conducted displacements anywhere else were therefore limited to BCT subjects, even if their METLs included conducting OSUT.

The desire to perform well on evaluations also created serious communica-

tions problems between the RC cadre and the displaced AC cadre, who almost always acted as evaluators for the displacement. For the USAR units, the evaluation of annual training was the most important measure of success during the training year. Junior RC leaders sometimes perceived that senior AC leaders were judging their unit's effectiveness, and thus the effectiveness of subordinate leaders, solely by their performance during the formal evaluation. Even when the senior leaders had not actually done this, the junior leaders perceived that they had and acted accordingly.

In some cases, the allegations of unfairness had some validity. Many AC cadres viewed the displacements as a training distraction and either did not allow the RC cadre full control of the training or severely criticized its execution of the training.

Regardless of the situation, the responsibility for evaluating the RC created an environment in which the RC cadre was unwilling to seek assistance or ask for advice from the AC cadre for fear the request would be interpreted as a weakness and reflected as such on an evaluation.

The perception of the USAR displacements as a training distraction also had some validity. AC leaders pointed out that there was no net gain from conducting these displacements. The RC could not point to a group of soldiers trained solely by RC cadre to help justify their existence (as they too faced a drawdown and the possible wholesale elimination of units). The USAR trainers just temporarily replaced AC cadre, who were then used as evaluators. The displacements, instead of reducing the work for the Active Army, created more work. The AC cadre acted as evaluators during the displacement and then had to deal with the disruptive influence after the RC cadre had left, possibly retraining soldiers in areas where they felt the training had been inferior. These problems were compounded when a new or inexperienced AC cadre was forced into the evaluator's role.

All of these shortcomings became

apparent with the initiation of Operation DESERT SHIELD and the likely mobilization of USAR training divisions to meet the projected demands of a possible full-scale war. Leaders realized that the training opportunities given to USAR units during their displacements had to be drastically improved at a time when fiscal constraints limited the budgets of both components. Therefore, the same leaders developed the PRO-Train concept specifically to address the perceived shortcomings in their training strategy: poor coordination and planning, unfamiliarity with local procedures, the specialization of RC cadre, poor communication, overemphasis on evaluators, and the perception of USAR displacements as training distractions.

The initial PRO-Train program com-

The principle of Echo Company PRO-Train ties one existing OSUT company from an AC training battalion to one USAR training division for all displacements.

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bined the features of a MATC with a regular unit displacement. USAR units rotated through an entire provisional Active Army battalion created solely for this temporary mission and manned by a core of AC cadre for continuity. Although this original program failed to address the problems inherent in the previous types of displacements, it did serve as the foundation for the Echo Company PRO-Train concept (so named because, initially, the Echo Companies from selected battalions were to be designated PRO-Train units).

The principle of Echo Company PRO-Train ties one existing OSUT company from an AC training battalion to one USAR training division for all displacements. USAR companies from that division rotate every two weeks to complete a 13-week training cycle in the same company. That one AC company is the permanent PRO-Train company for that USAR division, thus allowing

for habitual relationships between units as well as consistent long-range planning and effective coordination. This allows the USAR cadre to become more familiar with local policies and procedures as well as the ranges and other facilities and agencies available at that training center.

For the AC PRO-Train unit, USAR displacement training no longer disrupts the AC unit's mission, because assisting, coaching, and mentoring the USAR cadre in the execution of OSUT *is* the unit's mission. The new mission also allows the Active Army leaders to reorganize the personnel structure of the AC PRO-Train unit and improve displacement experiences by hand-selecting a smaller number of AC cadre members who are experienced in the planning and execution of OSUT and capable of their difficult coaching, mentoring, and assistance missions. Thus, the best AC cadre can directly affect the quality of USAR displacement training. Other AC companies—removed from the responsibilities and disruptions of any displacements in their companies—can then focus on their missions. At the same time, USAR training divisions participating in Echo Company PRO-Train displacements can point to a product trained almost entirely by their own cadre—the soldiers who complete the training.

To reduce the problems caused by a heavy emphasis on evaluations, the AC PRO-Train unit does not complete an evaluation of the RC unit. The responsibility for the evaluation rests with the RC unit itself, in accordance with Field Manual 25-101, *Battle Focused Training.*

Instead of a formal external evaluation, the entire cadre, both AC and RC, participates in daily AARs that focus on identifying training strengths and weaknesses, and on developing strategies to correct deficiencies. At the end of each displacement, the RC cadre completes a take-home packet that summarizes the daily AARs and outlines the unit's overall performance in critical areas.

This evaluation plan has resulted in evaluations that are much more mean-

ingful to the USAR leaders, because those evaluations are their own, as opposed to external evaluations. More important, the plan allows the AC cadre to coach without the communication problems that resulted from their previous role as evaluators.

In addition to bringing about the simplification of coordination and planning, the PRO-Train concept also limits the specialization of RC units by forcing them to conduct displacements throughout the OSUT cycle. The AC PRO-Train cadre cannot conduct OSUT alone. The USAR training divisions are committed to back-to-back displacements for the entire cycle without any gaps, and there are too many different rotations and too few units to allow the same specialization that existed when USAR units shopped around for displacements. Since the USAR training division is aligned with one company and committed to training entire OSUT cycles, all of their displacement opportunities are at Fort Benning's Infantry Training Brigade.

The significant improvement in the quality of planning and execution for displacement missions has resulted in better training opportunities for RC cadres. Most of the shortcomings identified with the various types of displacements have been either eliminated or significantly reduced.

The PRO-Train concept has also

> *The significant improvement in the quality of planning and execution for displacement missions has resulted in better training opportunities for RC cadres.*

resulted in a marked improvement in the planning and conduct of both the displacements and the training conducted by the RC cadre. With subsequent USAR displacement missions to the same PRO-Train company, the real advantages of the concept should become even more apparent. The AC

PRO-Train cadre should also develop as better coaches and mentors as the unit adapts its policies and procedures to better meet the mission requirements.

In the environment of a shrinking Active Army force, the readiness of USAR training units to mobilize and produce trained infantrymen is critically important. The Echo Company PRO-Train concept marks a significant change in the way AC and RC units work to ensure that the total Army is prepared. This concept improves training and readiness and does so with an economy of personnel and resources. Hopefully, the Army will study this program and apply it to the training of other USAR training units to the benefit of the total force.

Captain Ron Kinser commanded an OSUT company and a PRO-Train company in the 2d Battalion, 58th Infantry, U.S. Army Infantry Training Brigade. He previously served as a senior platoon trainer for the Infantry Officer Basic Course. He is a 1986 ROTC graduate of Kansas State University and is now pursuing a master's degree at Indiana University.

Deception Objectives
Scarecrows, Puppets, and Mannequins

CAPTAIN ROBERT A. ALBINO

Imagine a group of soldiers faithfully executing their duties, standing firm under heavy fire without flinching. These soldiers are dummies, a ruse or trick of war called a *display,* intended to divert the enemy's attention and action away from the real soldiers.

The action, in this case, is the enemy's fire and maneuver. With the enemy maneuver based on intelligence

gathered from the dummy displays, you can be well on your way to a tactical victory. In this case, the dummy troops help create a believable deception story for the enemy that leads him to an incorrect estimate of the situation. This faulty estimate, in turn, leads him to make a bad decision and implement a course of action that you want him to try. This is the *deception objective.* A

simple example would be to place dummy troops where you are weak to trick the enemy into attacking where you are actually strong.

Another deception objective might be to cause the enemy to waste scarce resources reacting to your deception story, which could allow you to win a logistical victory. For example, you could occupy a remote position with

dummies made of old uniforms and—from a safe distance—watch the enemy lob artillery shells at it.

Dummies can also give you a chance to win a psychological victory; the fact that dummies seldom fall down after taking a few bullets can create nightmarish fantasies in the mind of the enemy. After taking careful aim at a dummy and firing, an enemy soldier will first think he has missed. After a few more shots, he may begin to doubt his marksmanship skills or the accuracy of his weapon and to admire the bravery of this unmoving American soldier. If he's sure his bullet has hit, he will wonder if this American soldier is wearing some sort of new and improved protective vest. Or he may imagine that his target is really some sort of futuristic Ultimate Soldier, impervious to bullets.

The enemy soldier will soon figure out that his target is really a dummy, but this won't really put his mind at ease. Not only will he be frustrated because he has wasted time and ammunition shooting at a dummy, but he will also wonder how many real soldiers his muzzle flash, smoke, and noise may have alerted to his exact location. He may also wonder what else has happened while his attention was on the dummy.

Even after the enemy soldier figures out the true identity of the dummy, that does not mean that he and his peers cannot be fooled again. They will still have to divert precious time, and perhaps ammunition, to finding out whether the next dummy is real.

Types of Dummies

In the near future, industry will no doubt mass-produce more sophisticated dummies—perhaps a dummy-in-a-can that inflates rapidly with compressed air, or an inflatable dummy with a glue type compound that hardens so a bullet won't deflate it. Until such devices are available, though, the scarecrow is a good solution.

The design for a scarecrow is simple, and the materials for its construction are readily available. Even the most Spartan of unit packing lists contains a spare battle dress uniform (BDU), and nature provides the rest of the materials—sticks for the frame, legs, arms, neck and head, and even the fake rifle the scarecrow will hold. Leaves and straw can make the hands and face look more realistic.

An even quicker way of making a dummy requires only an MRE (meal, ready to eat) bag and a coat hanger, plus the uniform. Use the MRE bag as the head, button the pants to the bottom of the shirt, and hang it on the lower branch of a tree. This dummy can be carried in a rucksack, then pulled out and deployed in seconds at the end of a night patrol. Being light, it will move with the wind and seem even more alive.

A dummy doesn't necessarily have to be life size, especially when there are no objects in the background for com-

> *A dummy doesn't have to be life size, especially when there are no objects in the background for comparison. The Allied powers of World War II dropped puppets with parachutes over the Normandy countryside, effectively confusing the German occupation forces as to the actual drop area.*

parison. Half-sized dummies can be used, with all the advantages of easy transportability and savings in construction materials. The Allied powers of World War II used this concept in executing the D-Day deception plan when they dropped puppets with parachutes over the Normandy countryside, effectively confusing the German occupation forces as to the actual drop area. Against the sky and in the wind, these puppets looked both full-size and alive enough to deceive German ground troops.

As easy as it is to make a scarecrow-like dummy, there are situations in which it might be easier and better to get a mannequin. Every urban environment has stores with mannequins, and they are a big improvement over scarecrow dummies quickly thrown

together in the field. (The realism of mannequins is already successful in highway law enforcement. An off-duty officer parks his patrol car on the roadside and places a mannequin in the driver's seat, knowing well that the sight of a manned patrol car will make people drive more cautiously.) A mannequin has other advantages—it usually comes with a base to support it in a standing position, is easy to pose in a variety of ways, and its parts are interchangeable with mannequins of the same brand name.

Any big department store in a city will have enough mannequins to field a whole platoon of dummies, and even a smaller store is likely to have one or two in its display window. A commander who follows the correct administrative procedures can requisition this civilian property and incorporate mannequin dummy positions into his defense plan.

Employment

The employment of scarecrow or mannequin dummies requires as much flair as their construction. There's no guarantee that what worked once will work again, even in the same situation, but the following guidelines should be helpful:

Don't put your dummies too close to your soldiers. The basic rules of dispersion also apply with a mix of real and dummy soldiers. You don't want munitions that are aimed at the dummies to hit the soldiers. A corollary to this rule is not to put your own soldiers directly *behind* the dummies in relation to the enemy for obvious reasons.

Don't camouflage the dummy positions as well as you camouflage real positions. If the dummies are hidden from the enemy's intelligence collection means and targeting systems, your real soldiers may be seen and targeted first. Well-camouflaged dummies wouldn't even be a distraction in this case.

Just how well-camouflaged the dummies should be depends upon the situation. If the enemy has artillery, uncamouflaged dummies could be barrage bait, not just for themselves but for the whole battle position. This is not bad, of course, if there are no soldiers in

the entire battle position, since the deception objective is to attract artillery away from real battle positions.

If the existence of this particular battle position is not to be known to the enemy—or if the patrol base or mission support site is in a nonpermissive fire environment—the dummies should be only slightly less camouflaged than the real soldiers. This will ensure that the dummies are discovered and engaged,

If you want to conceal the fact that you're thinning the lines or reducing the manpower at an installation, you can substitute dummies for its personnel, allowing the real personnel to be used elsewhere.

or somehow reacted to, just before the soldiers would have been engaged.

Even as the firefight progresses, the dummies will continue to be engaged instead of the soldiers. But the soldiers' actions during a firefight—movement and weapon muzzle flash, smoke, and noise—will then make them much more noticeable than the silent dummies. Consider, however, that the more noticeable you make them, the more likely the whole position will be discovered.

For the security of fixed installations, relocate dummy positions often. Although fixed installations usually don't have to hide their existence, they may want to hide their use of dummies. Under continued enemy observation, a dummy standing guard in the same place for an unnaturally long time will eventually be identified as a dummy. Relocate the dummies at irregular intervals, and make sure the new locations don't accent the dummies' imperfections. The relocation should be as clandestine as possible.

Even if your use of dummies becomes known, don't stray from the course of moving them. Each dummy relocation presents the enemy with a new scenario to plan and execute

against, and it is mostly irrelevant whether he knows you once used dummies. If you vary the number of dummies and real security guards, this further complicates even the pre-strike observation that the enemy must do. Your constantly changing use of dummies forces the enemy to conduct a sustained surveillance with continued updating and reporting. Your knowledge of the area around the installation, and the enemy observer's requirement to report, can help you pinpoint and eliminate his observation positions.

Or, even more likely, the enemy will be discouraged by the increased complexities in surveillance, planning, and execution that the use of dummies has created. In this case, he will be deterred from striking against your installation and if deterrence is part of your security force mission you have certainly accomplished that part.

Dress your scarecrow dummies in MOPP (mission oriented protective posture) gear to further confuse the enemy. At the sight of dummies wearing protective masks, an enemy soldier's first reaction may be to put on his own mask or other protective gear before engaging them. In addition to delaying the enemy's operation, this also reduces the ability of the individual enemy soldiers. The sight of the dummies may initiate a series of confusing and time-consuming enemy radio reports in an effort to determine why these soldiers are in MOPP. When the enemy breaks radio silence with these transmissions, your electronic warfare radio scanners may be able to pinpoint and target his location.

One word of caution: In the fog of war, the sight of your dummies in MOPP gear may fool the enemy into believing that the situation has escalated to the free use of nuclear, biological, chemical (NBC) weapons, and his logical response will be to use his own NBC weapons. With this possibility, ensure that your commander is informed of your deception plan and authorizes the use of MOPP gear in it, especially if NBC weapons have not yet been introduced to the conflict.

The use of MOPP gear also has other advantages. The protective mask eliminates the need for facial details on the dummy. Furthermore, the mask, even without its NBC implications, creates an ominous gorilla-like stare that demands the attention of the enemy more than any human facial features you might create on a dummy.

Consider making one or more dummies with enemy uniforms. It is both confusing and demoralizing to an enemy soldier to see what he believes is one of his comrades pointing a weapon at him with the intent to kill. In his mind, then, his own uniform no longer means that the wearer is necessarily an ally. Thus, one or more dummies in enemy uniforms also increases the likelihood of fratricide on the enemy's part. But make sure your own soldiers are not confused by dummies in enemy uniforms in their midst.

Your use of dummies can deceive the enemy about your troop movements and troop strength. For example, if you want to conceal the fact that you're thinning the lines or reducing the manpower at an installation, you can substitute dummies for its personnel, allowing the real personnel to be used elsewhere.

On the other hand, if you want the enemy to believe you are committing

The dummies draw fire and cause the enemy to leave his weapon signature on the countryside, and the noise, smoke, and flash can pinpoint the enemy's position.

your reserve to reinforce a place you're actually not reinforcing, use dummies. At night, mannequins sitting in the backs of open trucks moving down the road can look quite realistic. Put a few lighted cigarettes in their hands, and add two or three real soldiers to each truck for the noise and movement, and the enemy will believe he sees truckloads of real soldiers. At the destination, clandestinely load all the

dummies onto one covered truck, and have all the trucks go back to the start point. An enemy observer will see empty trucks, except for that one covered truck that might be carrying garbage or something insignificant. At the start point, reconfigure the trucks, away from enemy observation, for the next shuttle run. The enemy will believe another convoy of soldiers is going to join the first load when in fact the trucks are carrying the same dummies as before.

Dummies can delay an enemy in hot pursuit. By establishing dummy positions overwatching the planned withdrawal route, you can divert enemy attention and fire away from your withdrawing unit. Thus, the enemy will be preoccupied with the dummies while you break contact. If the planned withdrawal route runs through friendly territory that is often patrolled by the enemy—or if the route is totally within an enemy-occupied, semipermissive or nonpermissive environment—you may want to hide these dummy positions un-

til they are to be employed.

One way to do this is to have the dummy positions camouflaged in such a way that they are invisible until your soldiers run by and rip away the camouflage. Another way is to have the dummies lying down and covered with leaves but with a trip lever, rope, or other device that withdrawing soldiers can quickly activate. Since the soldiers being chased certainly will not have much time, the important thing is to expose the dummy position quickly.

Since the dummies will attract not only the enemy's attention but also his presence, put mines and booby traps in and around the dummy position. Planting a claymore mine in the chest of a dummy can be quite effective against enemy soldiers who get too close. One word of caution, though: Make sure your own soldiers know where these mines and booby traps are and that they do not stray from the route. Or if you do put mines on the route you plan to use, make sure these are dummy mines. Your

own soldiers, knowing they are dummies, will continue to run the route, not caring if they hit a trip wire. But the enemy will be more cautious upon seeing the mines; he will either slow down to work his way through the dummy mines or go around them and run into your real mines and booby traps.

Another idea is to have a dummy posed with his hands up. If realistic, this will cause the enemy to go into his prisoner-handling procedures and delay his pursuit. Do not, however, place mines and booby traps around this dummy; it is questionable whether this would be in accordance with the Geneva conventions or the laws of land warfare and could set a dangerous precedent for the future treatment of prisoners.

Finally, it is important to note that while these ideas can supplement your withdrawal under pressure, they are no substitute for a well-rehearsed withdrawal plan that calls for the units leapfrogging or bounding back under the cover of each other's protective fire.

Just as scarecrow dummies can delay or prevent the enemy from pursuing you down your withdrawal route, they can also deter the enemy from using a particular withdrawal route when he wants to escape. For example, when trying to seal off a kill zone or an engagement area, you can place dummies on the far side to deter or delay the enemy's escape. Placing real soldiers there would risk fratricide, but dummies are just as impervious to friendly fire as to enemy fire.

Granted, the dummies will not be as effective as mines and obstacles in preventing a desperate enemy from escaping, but they will neither cost nor weigh as much. Nor will they take as much time to emplace or entail as much noise while being emplaced. The best solution, situation permitting, is to use a mix of mines, obstacles, and dummies to help seal off the enemy's withdrawal route.

Use a lot of dummies to make the enemy hesitate when encountering your real troops. Using numerous dummies can give you a reverse psychology advantage where the enemy will hesitate to engage a real soldier, believing him to be just another dummy. At the worst, it will cause him to hesitate a split second, which could be enough of an edge to let your soldier win the engagement.

A situation in which this is possible is populating the countryside with dummies. The first two or three frustrating engagements of the next enemy patrol through the area will have the enemy shooting at dummies that do nothing but stare back at them. By the time the enemy point man finally discovers what he thinks is one of your real soldiers, the rest of his patrol will probably think he is just "crying wolf" again. This will cause a delay while the point man cautiously tries to double check what he thinks he sees. During this delay, your soldiers take careful aim and fire first. Or if these soldiers are not ready to fire, the enemy patrol leader will just tell his point man to move along, that he's seeing more dummies.

Don't use more dummies than you can keep track of. A "lot of" dummies doesn't mean more than you can keep track of. In the Chinese Army, each

man reputedly carries a dummy. This could mean that they have 50-50 mix of real and dummy soldiers, or that there is one man to keep good track of one dummy. But it is a little more complex than that. Your one soldier needs to keep track of more than just the one dummy in his assigned sector or field of fire; he also has to keep track of all the dummies in his greater surrounding area. The danger of not knowing the whereabouts of all the nearby dummies is that your own soldiers will fall victim to your reverse psychology. Here, one of your soldiers might hesitate or fail to

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Regardless of the type of dummies used, deception techniques will be effective in wartime only if they are emphasized and implemented down to the lowest levels in peacetime training.

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engage enemy soldiers because he thinks they are your own dummies. Therefore, do not use much more than one dummy for each friendly soldier; otherwise, it will be too easy to lose track of all the dummies.

Use your dummies to reveal the enemy's location. Dummies can provide so much good intelligence that it is almost as if they can point and talk. The Germans used this technique against snipers on the Russian front in World War II. They would place a helmet and overcoat on a thick board and raise it above their trench lines, then lower it once the dummy was hit. The bullet's path through the board would give an azimuth to the Russian sniper position, and with a little map analysis the Germans would have his exact location. Their next step was to call in artillery or mortar fire until the sniper was neutralized.

Use puppet paratroopers to confuse the enemy as to the actual landing sites. This is just like the D-Day example. If your paratrooper insertion is large, or

if it cannot be hidden for some other reason regardless of how stealthy you are, this method can deceive the enemy in the same manner as false helicopter insertions. With the puppet being smaller than a real man, several puppet teams can be loaded on the same air frame as your real parachutist team and take up a fraction of the space. Before and after, and possibly even with the real team jumping, the puppet teams can be dropped over the enemy occupied territory. This will overload the enemy's intelligence network with reports of parachutists falling everywhere and hopefully overwork his reaction forces to the extent that the real team will be able to accomplish its mission without much enemy interference.

Another advantage of the puppets' small size is that enemy observers will think they are real parachutists falling at a greater distance. Moreover, the advantage of their light weight is that puppets dropped over a thickly forested area will not reach the ground but will remain high in the branches, further deceiving patrols the enemy sends through the area. Even if a puppet is discovered, it will not, in itself, tell the enemy whether or not your real paratroopers landed nearby.

The MOUT environment is ideal for dummies. MOUT deserves particular mention, because dummy positions there are especially easy to make. Even if mannequins cannot be found, there will be enough rubble and trash to provide construction material. Actually, not much is needed; a pipe hanging out a window in the direction of the enemy is enough to attract his attention and a cardboard silhouette in a window can be an effective dummy position. Besides windows, the buildings provide numerous doors, rooms, roofs, and crannies for dummy position locations, all of which will require an enemy to react.

Regardless of the type of dummies used, deception techniques will be effective in wartime only if they are emphasized and implemented down to the lowest levels in peacetime training. It is the individual soldier who will construct the dummy that takes the bullet

with his own name on it, and we must provide him with the training opportunities and resources to do it properly.

Few resources are needed for a scarecrow dummy; the most vital one is the uniform. Most U.S. Army units do not issue uniforms to their soldiers for that purpose, and soldiers are understandably reluctant to make scarecrows out of the ones they have paid for. The solution is to issue salvage uniforms so that leaders can emphasize making dummies without worrying

about their orders causing wear and tear on the soldiers' personal property. This will be an added expense to the Army's logistical system, but it will cost far less to field a platoon of scarecrow dummies than to field, or bury, a single soldier.

All training, from combat training center deployments to local field training exercises, must be analyzed to see whether dummies can be employed in them. This article offers suggestions for only the most basic of scarecrow techniques. But it is important for our soldiers

to learn these fundamentals, because technology will soon add a new twist to the age-old scarecrow idea: When the age of robotics arrives, dummies will be able to shoot back.

Captain Robert A. Albino, a Special Forces officer, is assigned to 2d Battalion, 10th Special Forces Group. He previously served in the 8th Infantry Division, where he conducted personal experiments with scarecrow dummies. He is a 1986 graduate of the United States Military Academy.

SWAP SHOP

OPTICAL CAMOUFLAGE

The shine from binoculars, scopes, infrared viewers, night vision goggles, and even individual sun, wind, dust goggles (SWDGs) can give away your presence, especially in the open expanse of the desert, and draw enemy fire. Glint from an officer's binoculars gave away the Confederate attack at Gettysburg, killed the German Army's top sniper in World War II, cost an Israeli general an eye, and allowed a Marine gunnery sergeant to take out the Viet Cong's top sniper.

Visiting paratroopers from the former Soviet Union said recently that looking for reflections from our optics was a major scouting tactic in the Cold War. And during major U.S. Army exercises, at least one scout helicopter is usually assigned the sole mission of looking for optic reflections from ground forces.

You can shield binoculars by cupping your fingers around the outer lenses. But you can't cup your fingers around a weapon scope or around the SWDGs you're wearing or resting on your helmet.

A field expedient solution is to make lens covers from a pair of women's brown nylon pantyhose, preferably a pair

with the thicker nylon in the upper part. This technique will give you immediate camouflage for your optics while preserving their normal use.

FOR BINOCULARS AND SCOPES:
(1) Cut off the ends (toes).
(2) Stretch the fabric over the lenses.
(3) Secure with a rubber band and tape.

FOR THE SWDG LENS:
(1) Lay lens on the thicker nylon.
(2) Outline shape with a pen, and cut out.
(3) Stretch fabric over the lens as you return it to the frame, leaving a little overhang.
(4) When lens is back in place, trim excess nylon from inside the goggles.

Industry has developed special lens covers that can be retrofitted to issue binoculars, vehicle headlights, sunglasses, sniper scopes, and infrared thermal sights such as those used on the Dragon and Javelin missiles. Hopefully, similar covers will also be developed for use on SWDGs and prescription eyeglasses.

(Submitted by Mike Sparks, U.S. Army National Guard, Raeford, North Carolina.)
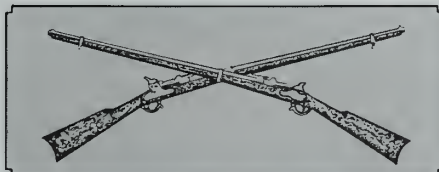
INFANTRY CAREER NOTES

U.S. MILITARY ACADEMY PREPARATORY SCHOOL

The U.S. Military Academy Preparatory School (USMAPS), Fort Monmouth, New Jersey, offers enlisted soldiers a unique opportunity to gain appointments to the academy and become officers.

The preparatory school's primary focus is on academics, with training in English and math skills making up most of the curriculum, along with a section on computer skills. But it also prepares the candidates for the rigors of cadet life.

The development of leadership traits and ethics is a large part of student life. Cadet candidates live within a student chain of command similar to that at West Point. Positions in the chain are rotated periodically to give each candidate some leadership experience. A carefully selected Army captain acts as the commander of each company of students to guide and counsel them on effective leadership.

Athletic activities serve the dual purpose of conditioning the candidates and providing them with welcome relief from the rigorous academic program. Each day, students are involved in either varsity or intramural sports that include football, basketball, soccer, lacrosse, baseball, wrestling, and cross-country running.

To be eligible to attend USMAPS, a soldier must meet the following requirements:

- U.S. citizen.
- At least 17 but not yet 21 years of age on 1 July of the year entering.
- Unmarried with no legal obligation to support dependents.
- In good health with no disqualifying physical defects.
- High school graduate or equivalent.
- Of high moral character, no felony conviction by a civilian or military court, and no history of venereal infection, habitual alcohol abuse, or narcotics addiction.

Interested soldiers who meet these qualifications should apply before the 1 May 1995 deadline. Those selected will report to Fort Monmouth in late July to begin the 10-month training session.

For further information, write to Commandant, USMAPS, ATTN: MAPS-ADM, Fort Monmouth, NJ 07703-5000; or call the Admissions Office at DSN 992-1807/0808 or commercial (908) 532-1807/1808.

NEW EDUCATION BENEFITS FOR RESERVISTS

The U.S. Army Reserve's new education benefits program, *Project World Class,* helps soldiers complete either associate or baccalaureate degrees at approved institutions. They will be able to complete many, if not all, of the required courses at home.

By calling (800) 852-5277, Reservists can access the following services:

College degree planning. Reservists may learn what credits they can earn for their military experience and have personalized two-year or four-year degree plans prepared. The planning service will survey all available external degree programs to find an approved school that offers maximum credit for military training and prior college education based upon a soldier's background and desired degree.

Video CLEP/DSST preparation materials. Home study preparation materials for many College-Level Examination Program (CLEP) exams and DANTES Subject Standardized Tests (DSST) will be provided free of charge to Army Reserve soldiers who want to earn credit through these examination programs.

GED Test preparation materials. Home study video courses in reading, mathematics, grammar, and writing are available free of charge to soldiers preparing for the GED (General Equivalency Diploma) Test. A study will be tailored to meet individual learning needs.

For additional information on the program, Reservists may call Abdul Ali, USAR Education Services Specialist at (800) 359-8483, extension 8579.
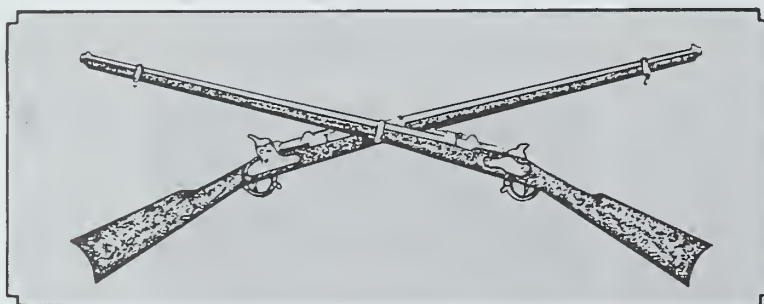
BOOK REVIEWS

Three valuable reference works have come to us recently:

Five volumes in the *Compendium of the Confederate Armies* **series, by Stewart Sifakis, Facts on File, 1995:** *South Carolina and Georgia* **(320 Pages, $29.95);** *Louisiana* **(160 Pages, $24.95);** *Kentucky, Maryland, Missouri and the Indian Units* **(216 Pages, $27.50);** *Mississippi* **(160 Pages, $24.95); and** *Texas* **(160 Pages, $24.95).** These volumes, the first in a projected 11-volume series, will form a comprehensive history of every regiment, battalion, battery, and company that served in the Confederate Army. The series is intended to be the companion set to Frederick H. Dyer's *Compendium of the War of the Rebellion,* a study of all the Union regiments, battalions, batteries, and independent companies. That work, first published as three volumes in 1909, has since been reprinted in two-volume and one-volume editions.

Reference Guide to United States Military History: 1945 to the Present, **edited by Charles Reginald Shrader. Facts on File, 1995. 320 Pages. $50.00.** This volume is the last of a five-volume series that spans the years since 1607, covering every significant issue, event, battle, innovation, or personality in the history of the armed forces in the United States.

Brassey's Encyclopedia of Military History and Biography. **Edited by Franklin D. Margiotta, with Foreword by John Keegan. Brassey's, 1994. 1,232 Pages. $44.95.** Specially selected from the six volumes of the widely praised *International Military and Defense Encyclopedia,* this volume is the complete alphabetized guide to the history of warfare and military leaders. Compiled by leading military historians from around the world, it is a handy, readable reference for anyone interested in military history.

The Poems of General George S. Patton, Jr.: Lines of Fire. **Introduced, annotated, and edited by Carmine A. Prioli. Studies in American Literature, Volume 8. Edwin Mellen Press (Box 450, Lewiston, NY 14092), 1991. 176 Pages. $59.95.** Reviewed by Colonel Cole C. Kingseed, U.S. Army.

Most Americans are familiar with the military achievements of George S. Patton, Jr., but few realize that he considered himself as much a poet as a soldier. Although several of his poems have appeared in biographies and movies, this is the first time virtually all of his verses have been assembled in a single volume. The result is as entertaining as it is informative.

Patton once remarked to his wife, "I have a hell of a memory for poetry and war." Indeed, he used the medium of poetry to express his knowledge of military history, his conception of manhood, and his personal beliefs in the ennobling aspects of war and its consequences. As editor Prioli states, Patton's poems highlight aspects of his life and personality that are often hidden from public scrutiny and help penetrate the "mask" of command that Patton himself strove to construct.

The Patton who emerges from these pages is a commander who wrote poetry, not for critical acclaim, but for other soldiers. His poems had a purpose—sometimes to spur soldiers on to greater achievement. Often the verses provided an escape from the burdens associated with higher command in war. The collected poems also reveal a more humane Patton than the Patton of the legend, but still a soldier convinced that war is the most magnificent competition in which a human being can indulge.

Lines of Fire is must reading for all students of one of this country's greatest soldiers. By providing another dimension to the controversial commander, Prioli has made a major contribution to the Patton legend.

Closing With the Enemy: How GIs Fought the War in Europe, 1944-1945. **By Michael D. Doubler. The University Press of Kansas, 1994. 354 Pages. $29.95.** Reviewed by Lieutenant Colonel Albert N. Garland, United States Army, Retired.

As a former rifle company commander who lived through five months of combat in northwest Europe, Michael Doubler has brought back many memories in this book—good and bad. As a reader can tell by his subtitle, he restricts his comments and discussions to a particular period of time and a particular theater of operations. In actuality, he does not go beyond the Battle of the Bulge and covers only the part of that battle that took place in the Ardennes Forest area.

In general, with two major and several minor exceptions, I felt he had a good grasp of his material—both primary and secondary sources—and used it well to present things as they appeared to the ground combat soldier. I certainly agree with much of what he says: We were not well prepared for the combat we entered into in Europe; and there was much we could, and should, have accomplished before firing our first shots. Our replacement system was bad, and we did not know how to handle large numbers of combat exhaustion cases or the trench-foot problems that plagued us in October and November 1944. But we did learn, and

Doubler gives us great credit for doing so.

The major exceptions? He does not mention fighting in mountains, as the Seventh Army had to do in the Sixth Army Group's area and during which many lessons were learned, and he does not mention our airborne operations, either in Normandy or in Holland, both of which offered a significant number of lessons to be pondered.

The minor exceptions? As with most authors writing about the Army's experiences in Europe in 1944-1945, Doubler ignores the Seventh Army's experiences. In addition, infantry regiments, to my knowledge, never possessed "assault guns" (page 14); Doubler does not mention the many lessons learned from the amphibious and airborne operations in North Africa, Sicily, and the early months of the Italian campaign that stood the Army in good stead in preparing for the Normandy crossing; he cites no reference for the statement on page 25 that "senior commanders soon found out that even the best units were capable of only limited, continuous enemy contact and that troops passed their peak efficiency after three days of intensive combat"—these words are not borne out in the later chapters of the book; there were four, not six, U.S. divisions in Normandy in early July 1944 that had previous combat experience—the 2d and 4th Infantry Divisions had no such experience; and, overall, there is too much repetition. In fact, a military instructor could use each chapter separately for discussions on the various operations Doubler talks about: Fighting in restricted terrain (the bocage), city and village fighting (urban terrain), battling strongly fortified positions, conducting opposed river crossings, the horrors of forest fighting, and defensive engagement.

Doubler also uses a separate chapter to discuss the development of air-ground cooperation, another to talk about "the American soldier," and a final one to give his thoughts on "the schoolhouse of war." He includes two useful appendixes, a note on his sources, and an index. His maps are

adequate, and his footnotes appear just before the index.

As an old-line infantryman, I bless Doubler, a serving Army officer, for praising the World War II ground combat soldier. He doesn't excuse any of our weaknesses, and rightly so, but he is willing to say the following:

It is clear that American soldiers were not so numerous or lavishly equipped that they could easily overpower their opponents.... It was not overwhelming numbers of American soldiers that defeated the Germans, but the variety of unique, innovative tactics and methods that they employed.... (page 108).

Several interesting things to note in the last two chapters are a survey of the casualties suffered in the European theater—"the greatest American bloodletting since Grant's 1864 drive on Richmond"; a table of comparative statistics of the 61 Army divisions—45 infantry, 16 armored—that served in Europe; and a discussion of the writings of S.L.A. Marshall (generally favorable), Russell Weigley, and Martin van Creveld.

A reader with limited time would do well to concentrate on the book's last two chapters instead of just skipping through the entire book. Other readers, and particularly professional soldiers, should read this book, study its contents well (particularly the sections on combat leadership), and make it a part of their personal libraries.

A Dose of Frontier Soldiering: The Memoirs of Corporal E.A. Bode, Frontier Regular Infantry, 1877-1882. **Edited by Thomas T. Smith. University of Nebraska Press, 1994. 237 Pages. $29.95.** Reviewed by Colonel Cole C. Kingseed, United States Army.

"A dose of frontier soldiering" is the way Corporal Emil A. Bode described his experiences in the post-Civil War Army stationed on the Western frontier. Unlike most memoirs written from the perspective of senior ranking officers, this latest edition of frontier historiography examines the military life of the constabulary Army from the

view of an ordinary infantry soldier. Ably edited by Thomas T. Smith, one of this country's most talented soldier-scholars, Bode's memoirs are unique in that they serve as a microcosm of late 19th century military life as the frontier Army transformed itself into a more professional army dedicated to preparing for war.

Spending his entire career in the 16th Infantry Regiment, Bode, an emigrant from Hanover, saw service at Fort Sill and on the Texas frontier, and he participated in the campaign to capture the Apache chief Victorio in the New Mexico Territory in 1880. Though he never fired a shot in anger, Bode epitomized the soldiers who tamed the West. Fully half the enlisted ranks were composed of immigrants; many were uneducated; and most were attracted to the military because of "peculiar (economic) circumstances." Unlike most of his contemporaries, however, Bode was better educated and never deserted, serving his entire enlistment in an honorable fashion.

Readers enamored of the glorious cavalry charges featured in John Ford's western movies will not recognize Bode's infantryman, to say nothing of John Wayne's officers or Ward Bond's NCOs. Bode spent most of his time on such mundane pursuits as guard duty, repair of telegraph lines, and kitchen police. Bode's frank characterizations of officers and NCOs alone make this book indispensable; newly commissioned second lieutenants, for example, were not too bad "after they lost their West Point ideas." Even more interesting is Bode's description of Indian life. Like many of his contemporaries, he empathized with the plight of the Native Americans, castigating the U.S. Government for its attempts to "civilize" the Indian.

Despite the many hardships of the Old Army, however, service with the infantry in the late 1870s seemed to suit Bode. Where else could a man enjoy "the pure virgin of nature's creation daily before him, with no smiling and deceiving society to contend? If a soldier experienced hard times for a while there were surely ninety percent

sunny days coming. And if he should die, no matter what place or time, he was buried with military honors and there were no hands to disturb his sacred grave." All in all, Bode was "perfectly satisfied where he was."

From Churchill's Secret Circle to the BBC: The Biography of Lieutenant General Sir Ian Jacob. **By General Sir Charles Richardson. Brassey's (UK), 1991. 304 Pages. $50.00.** Reviewed by Lieutenant Colonel Harold E. Raugh, Jr., U.S. Army.

A true and dedicated servant of the British Crown, Lieutenant General Sir Ian Jacob has made distinguished contributions in many important military and civilian endeavors. But his innate modesty and contempt for ostentation and publicity have generally prevented his achievements from being known to the public at large.

This oversight has been at least partially corrected with the publication of this book. Jacob was born in 1899, the last of 26 male members of his family who served in the East India Company's army from 1817 to 1926, or, later, in the Indian Army (including his father, who received his field marshal's baton in 1926). He was commissioned into the Royal Engineers in 1918 and served in increasingly responsible positions during the interwar years. Jacob's remarkable intellect, memory, analytical skill, and organizational abilities were fully recognized in 1938 when he was selected to be Military Assistant Secretary of the Committee of Imperial Defence.

It was at this point that Jacob was thrust into the central machinery for the administration of the entire British Empire. His position became more important after the outbreak of World War II in September 1939. Winston Churchill's selection as Prime Minister on 10 May 1940 marks the most significant and enlightening sections of this book. After a period of hesitation about Churchill's organizational abilities, Jacob became an unfailingly loyal member of Churchill's "Inner" or "Secret Circle."

From his unparalleled vantage point, Jacob worked with Churchill daily until the end of the war in 1945, and served as the Prime Minister's advance man and headed military staff support at most of the international conferences of the war. Jacob was an avid diarist, and his candid and perceptive observations of personalities and activities, short excerpts of which have appeared in many other books, make a significant contribution to the history of World War II. One item worth noting, however, is on page 127, where Jacob's diary entry for 20 August 1942 includes a quote from a book published in 1971. This may tempt readers to question whether Jacob's diary was written on that date or retrospectively.

At the end of the war Jacob, who had risen from major to major general but had not served with troops, retired from the Army to become Controller of European Services of the British Broadcasting Corporation (BBC). He became Governor General in 1952—at a crucial period when the BBC was experiencing competition from commercial television—and retired in 1960. Jacob's tenure at the BBC was highly successful. According to the author, Jacob was instrumental in ensuring "the full exploitation of the medium, the search for new capabilities, the insistence on quality in all forms of program, and the setting of a high standard throughout" (page 257). Jacob continues to contribute to civic and business activities.

The author, a retired full general who was also a Royal Engineer, empathizes with his subject, although an anti-Auchinleck, pro-Montgomery bias creeps subtly into the narrative. More than three dozen photographs ably supplement the text, along with the seven-page "chronology" of Jacob's life, chapter notes, and a bibliography.

As written by Lord Hankey, Jacob was "a true son of (his) father, and that is very high praise." This superb biography is also worthy of its subject; it is interesting, well written, and definitely well worth owning.

Abandoned by Lincoln: A Military Biography of General John Pope. **By** **Wallace J. Schutz and Walter N. Trenerry. University of Illinois Press, 1990. 243 Pages. $32.50.** Reviewed by Major Don Rightmyer, U.S. Air Force, Retired.

The authors of this book claim Union General John Pope as the only commanding general of a major Union army who has not had a biography written about him. Although this is not true, it is a small inaccuracy in an otherwise good Civil War history.

John Pope, a graduate in the 1842 class at West Point, spent most of his pre-Civil War Army career on the frontiers of the Army's enterprises. Commissioned as a topographical engineer, Pope participated in numerous explorations of the West as well as the active combat experiences of the Mexican War. Interestingly, the young officer had a bad habit of writing rather outspoken letters to high level civilian and military leaders outside his normal chain of command, which earned him unwanted attention on more than one occasion.

The Civil War saw Pope's first noteworthy success at the battle of Island No. 10 in the Mississippi River. Highlighted as an apparently successful general in an otherwise lackluster line of Northern military leaders, Pope was brought east to take up the fight in that theater. This Pope biography provides insights into the amazing role the political and strong personal affiliations of Northern military leaders played in the Civil War. For example, when many of General George McClellan's Army of the Potomac troops were taken from him on the Virginia Peninsula and sent to Pope's Army of Virginia, some of the subordinate leaders essentially refused to fight for Pope.

This book covers the eastern battles of Cedar Mountain, Groveton, and Second Manassas in which Pope led Union troops. After his failure in the East, Pope was sent back into the western theater where he spent the rest of the war and the rest of his 44-year Army career.

The book is supplemented by two appendixes—one on Fitz-John Porter's

courts-martial for his refusal to fight under Pope at Second Manassas and the other on Pope's generalship.

Abandoned by Lincoln is a very worthwhile, compact biography on one of the succession of generals who fought in the Virginia theater of operations before Lincoln finally identified Grant as the man for the job. Pope's life story offers an interesting perspective into the Civil War as well as nearly half a century of the Army's history on America's frontiers.

Gettysburg: Culp's Hill and Cemetery Hill. By Harry W. Pfanz. University of North Carolina Press, 1994. 507 Pages. $37.50. *The Second Day at Gettysburg: Essays on Confederate and Union Leadership.* Edited by Gary W. Gallagher. Kent State University Press, 1993. 210 Pages. $24.00. *Gettysburg: A Meditation on War and Values.* By Kent Gramm. Indiana University Press, 1994. 288 Pages. $24.95. Reviewed by Doctor Charles E. White, Infantry School Historian.

Interest in the Battle of Gettysburg (1-3 July 1863) has captivated Americans for more than 130 years. The recent film, "Gettysburg," is a stirring testimonial to the enduring fascination Americans have with our nation's greatest struggle. This review highlights the works of Harry Pfanz, Gary Gallagher, and Kent Gramm, who have added three more books to the voluminous literature that already exists on Gettysburg.

As its title suggests, *Gettysburg: Culp's Hill and Cemetery Hill* is the story of the fight on the Federal right on 2 July. It is essentially a continuation of Pfanz's earlier study, *Gettysburg, The Second Day* (University of North Carolina Press, 1987), which dealt exclusively with actions on the Federal left on 2 July. Both works should be read together. Both are superb tactical narratives that focus primarily on combat at the regimental level.

For anyone seeking every tactical detail of the second day at Gettysburg, Pfanz is the author to read. Unfortunately, he gets so involved in recreating an almost minute-by-minute account of the fighting that he loses sight of the larger picture. The student in search of a comprehensive study of this crucial campaign and battle should read Edwin B. Coddington, *The Gettysburg Campaign: A Study in Command* (Macmillan, 1968).

The Second Day at Gettysburg, a superb collection of essays, is a continuation of an earlier study, *The First Day at Gettysburg.* As with the previous work, Gary Gallagher has asked five noted historians to analyze Union and Confederate leadership on 2 July. Their essays encompass the famous struggles for Little Round Top, the Wheatfield, and the Peach Orchard, as well as the lesser known fighting along the slopes of Culp's Hill.

When writing their papers, the contributors examined a number of intriguing questions: Did Lee have better options, or did he give free rein to his naturally aggressive personality? Were Longstreet's actions at Gettysburg consistent with his behavior throughout the war? What really happened to the Union Twelfth Corps on 2 July 1863? Why should modern students exercise great care when criticizing Civil War commanders for failures on the battlefield? These are only a few of the topics addressed in this fine study of Union and Confederate leadership at Gettysburg.

Lastly, in *Gettysburg: A Meditation on War and Values,* Kent Gramm offers a unique look at the battle. Following Henry David Thoreau's dictum that "it is the province of the historian to find out, not what was, but what is," Gramm actually writes the story of two battlefields: Gettysburg during July 1863 and Gettysburg during the 1990s. In doing so, he asks a number of provocative questions: What motivated Americans to die in great numbers for principles as abstract as "union" and "states rights"? What have we done with the heritage they bequeathed to us? Do the battles we fight today have as noble a purpose as that fought at Gettysburg in 1863? Do Americans today really understand what it cost to preserve the Union?

This splendid book is a must for anyone who has visited Civil War battlefields and wondered who those people were and how we relate to them today.

RECENT AND RECOMMENDED

See, I Told You So. By Rush Limbaugh. Pocket Books, 1993. 320 Pages. $24.00, Hardcover.

Enlisted Soldier's Guide. Third Edition. Stackpole Books, 1993. 240 Pages. $12.95, Softbound.

Army Officer's Guide. 46th Edition. Stackpole Books, 1993. 608 Pages. $19.95, Softbound.

Arms and the Woman: Female Soldiers at War. By Kate Muir. Sinclair-Stevenson, 1994 (distributed by Trafalgar Square, North Pomfret, VT 05053). 209 Pages. $24.95.

The Naval Institute Guide to World Naval Weapons Systems, 1994 Update. By Norman Friedman. Naval Institute Press, 1994. 159 Pages. $40.00.

Codebreakers: The Inside Story of Bletchley Park. By F.H. Hinsley and Alan Stripp. Oxford University Press, 1993. 280 Pages. $25.00.

19 Stars: A Study in Military Character and Leadership. By Edgar F. Puryear, Jr. Originally published in 1971. Presidio Press, 1993. 468 Pages. $14.95, Softbound.

Sun-Tzu's Art of War. Translated by Ralph D. Sawyer. Westview Press, 1994. 375 Pages. $9.95, Softbound.

Contemporary Issues in Leadership. Third Edition. Edited by William E. Rosenbach and Robert L. Taylor. Westview Press, 1993. 233 Pages. $49.95, Hardcover; $17.95, Softbound.

Armed With Cameras: The American Military Photographers of World War II. By Peter Maslowski. The Free Press, 1993. 412 Pages. $29.95.

Veterans Benefits: The Complete Guide. By Keith D. Snyder and Richard E. O'Dell, with Craig Kubey. HarperReference, 1994. 410 Pages. $15.00.

The Commandos: The Inside Story of America's Secret Soldiers. By Douglas C. Waller. Simon & Schuster, 1994. 399 Pages. $23.00.

The Pentagon Paradox: The Development of the F-18 Hornet. By James P. Stevenson. Naval Institute Press, 1993. 448 Pages. $24.95.

100 Miles from Baghdad: With the French in Desert Storm. By James J. Cooke. Praeger Publishers, 1993. 256 Pages. $45.00.

From Sea to Shining Sea: From the War of 1812 to the Mexican War, the Saga of America's Expansion. By Robert Leckie. HarperCollins, 1993. 650 Pages. $30.00.

The Legend of the Mutilated Victory: Italy, the Great War, and the Paris Peace Conference, 1915-1919. By H. James Burgwyn. Contributions to the Study of World History, Number 38. Greenwood Press, 1993. 368 Pages. $55.00.

In the Aftermath of War: U.S. Support for Reconstruction and Nation-Building in Panama Following Just Cause. By Richard H. Shultz, Jr. Air University Press, 1993. 73 Pages.

Uncertain Warriors: Lyndon Johnson and His Vietnam Advisers. By David M. Barrett. University of Kansas Press, 1993. 296 Pages. $35.00.

Silent Warfare: Understanding the World of Intelligence. Second Edition, Revised. By Abram N. Shulsky and Gary J. Schmitt. Brassey's (US), 1993. 288 Pages. $19.95, Hardcover.

From The Editor

WATCH YOUR LANE

The past year has been a busy one for the Army, with troops deployed on a wide—and sometimes dangerous—variety of missions around the world, helping our own citizens cope with natural disasters at home, and all the while preparing for the transition to a ten-division force. We have seen the emergence of proponent battle laboratories at major installations, field-tested digital technology, and launched the Infantry Force XXI initiative here at Fort Benning. Significantly, the past year also witnessed the continuation of numerous combat developments programs that will contribute tremendously to the lethality, maneuverability, and survivability of the Infantryman. And this is what I want to talk about.

At company and battalion level—where most of our readers are to be found—a top priority is any equipment the soldier can wear, fire, or otherwise use to better accomplish his mission. It may be the end product of the Small Arms Master Plan, the Objective Individual Combat Weapon, with bursting and lightweight kinetic energy munitions. It may also include any of the night vision devices, global positioning systems, improvements to the mortar, or the latest developments in machinegun technology.

Decisions on simulations, digitization, and virtual reality will have their eventual impact on how the platoon sergeant, platoon leader, or company commander does his job, but until such initiatives are fully operational the immediate concern of these leaders must be to train and lead soldiers who can still close with and destroy the enemy by fire and maneuver.

Those groups and nations who can threaten our national interests may not possess our degree of technological skill, but this doesn't mean that they lack the will and the means to achieve their ends. In the past, we have fought less advanced adversaries, underestimated them, and suffered because of it. So how are we to prepare for the challenges of tomorrow?

One step is to gain the perspective that the study of military history can provide. Another—and more concrete—solution is to focus on tough, realistic training in the mission essential tasks that your unit will be expected to perform upon deployment. That is what spelled success in the past, and it will enable a unit to win in future as well. A leader owes it to himself—and the men entrusted to him—to stay abreast of his profession by readings and study, so keep an eye on Infantry Force XXI, Land Warrior, and the myriad programs and initiatives that accompany them. But while you are doing so, remember the immediate threat, the enemy you may face in the more immediate future, and watch your lane!

RAE

FLARE

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Rehearsals: The Key to Mission Success
Peacekeeping Operations in Somalia
Armor/Light Operations: Light Infantry
Field Trains Operations

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